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Einstein-Bohr End: New Atomic Scale Physics, Electric Field: Neutrinos and Electrons  
in Conversions, Perpetual Motion. Development: Systems, Extinguished Volcans, Created  
Islands, Big Bang Energy.

Specification.

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Technical field. L'invention concerns the construction of Absolutely New Physics of Microworld (Atomic Scale) instead of Einstein-Bohr one, developed from discovered appearance of the "magnetic forces" due to the mutual deformations of the electric fields of the real charges and the discovery of New important Force in Atom, conducting further to a net negation of all foundations of Einstein-Bohr Physics constructed from a beginning of XX century and accepted by everyone but which is, in reality, the trap, logically for centuries, because during a century, only the new "confirmations" took place and nothing indicated its profound global falsehood /as the sure continuous chain of the sure discoveries, "considered as one entirety, relatively to the State of Technics", wherein the developed continuous components of these chains (claims) "contain all characteristics of previous ones" ("Gazette du PCT" S-03/1998, p.46)/. Moreover, as a logic development, this profound Physics of Matter of the Universes engulfs, as the Natural indivisible entity, even the XIX century domain of Ampere, Faraday and Maxwell: at the 1st time, a serious nature of the electrical (and gravitational) fields was discovered, in completing this Invention. And this is proved by my sure discovery of Other Universes, that are, principally, invisible (their light cannot reach us at all), however their "cosmic (particle) rays" do reach us, that approves, ALREADY (!), all this Gigantic Complex of principally New Physics, creating the New State of the Human Knowledge and Capacities to Act with a projection for Millions Years!

The consecutive development gives already the new important applications: the resolved process of Seisms and their predictions, the possibility to extinguish all Volcans, contaminating the atmosphere, the creation of the islands, the Climate prediction (with the mechanisms of the sunspots) and the energy of Big Bang with the global falseness of the 2nd Thermodynamic law, also.

#### Summary.

The electric charges do not exist and it is only the EXISTING charges and electric fields and their RELATIVE movement that are the material origins of the "magnetic" interactions. Due to the deformations of these original electric fields during their RELATIVE movements, I discover New Force (unknown to Einstein and Maxwell, Bohr and Schrödinger) due to the electron rotation around the "immobile" nucleus. This New

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Force hind rs the electron to approach the positive nucleus. The consequences of this discov ry ar enormous: the author d clin s Principle of Uncertainty of Heizenberg and Duality Wave-Particle (the electron is only a particle, the light is only a wave), and also the presentation of the electron movement by some function, determining, at the end, the Reigning Probability of the electron presence in the particular space spot, indetermined by the physical laws. This force increases quicker than the Coulomb one with the nuclear distance (R) decrease and determines the force equilibrium for the electron in the atom and discrete fundamental orbit. During an excitation, the radial oscillation of the electron (around the fundamental orbit, or the temporary /more distant/ orbit due to the temporary augmentation of the tangential speed) is born between the two radial opposite forces (Coulomb and New ones) wherein the electron makes the sinusoidal quasistationary movement with PRECISE direction of the RADIAL movement towards the DISTANT nucleus (because of the wave radiation). The radial electron speed, wave frequence and amplitude are stronger with the increase of the radius differences. An appearance of New Force in a direction, opposite to the momentary movement of oscillations is the general condition of a transformation of the kinetic energy of the moving charged particle into that of the electromagnetic wave. Contradictions of the Einstein-Bohr Physics as absence of the "quantic orbital numbers" at the hydrogen atoms or helium ions (and their presence since the helium atoms), the Stark effect or the complete coincidence of the electron orbits without the exterior magnetic champ (it means a strange existence of the magnetic quantic numbers yet without the exterior magnetic field) are explained. The relativistic correction of Dirac in Schrödinger equation is not correct. The experiment of Michelson does not confirm Theory of Relativity. The light deviation near the Sun and the false particle mass increase in the accelerators do not prove Theory of Relativity neither. The change of the physical processes by the forces, unknown de facto in situ and depending on Observer. (like in Quantum Mechanics), during movements with speeds approaching to those of light without an acceleration, is strange apriori. Consequently, the most known conclusions of Theory of Relativity are not correct and the equations of Nuclear Physics and the properties of the certain number of the atomic (nuclear) particles are false. There is no dissapearance of the matter after the interaction between electron ( $e^-$ ) and positron ( $e^+$ ). It is the transformation of  $e^-$  and  $e^+$  into the neutrino ( $\nu$ ) and antineutrino ( $\bar{\nu}$ ) with the  $\gamma$ -ray appearance. Consequently, the masses of these particles are the same. The neutron contains the  $e^-$ ,  $e^+$ , gluon and neutro (the very inert new particle that is the "neutron" star mass). Solar System is created  $5 \times 10^9$

years ago, after explosion of the little Sun satellite (Supernova) and the neutros, created after explosion, hav to be the heavy nuclei of th planets, around which th other elements could attach.

The practical consequences are very tremendous but ask the investments One makes a detection (very expensive today) of  $\nu$  and  $\bar{\nu}$  with a help of the strong irradiating  $\gamma$ -rays wherein these particles are transformed into the charged  $e^-$  and  $e^+$ . One utilizes the very inert neutro (preparation process is described) to stock the charged particles (as  $e^-$  and  $e^+$ ) with their ( $e^-$  and  $e^+$ ) possible consecutive dozed encounter wherein this vessel can be congelated in a solid azote with hole for this vessel. One makes the simultaneous mesurements (against Principle of Heizenberg) of the coordinates and speed with a help of New Force (using the immobile revealing charge with a screen).

The Universal law of transformations:  $e^- = \nu + \gamma$  and  $e^+ = \bar{\nu} + \gamma$  permits to find the unknown yet serious nature of the electric (and gravitational) fields, propagating their action from Point to Point of the space (short distance action!) with a help of the omnipresent  $\nu$  and  $\bar{\nu}$ , which are transformed into the  $e^-$  and  $e^+$  (very momentarily and frequently with a propagation of the spheric waves) without any loss of the energy. A strange appearance of the E (and H) vectors (electrical and magnetic forces) in the empty space without the charges during the light propagation is due to the temporary and local conversions of the  $\nu$  and  $\bar{\nu}$  into the  $e^-$  and  $e^+$ . Due to an absence of the  $\nu$  and  $\bar{\nu}$  between Universes, one does not see, principally, Other Universes. One makes the Perpetual Motion Machine in eliminating (locally and temporally) the Coulomb field after a local elimination of the  $\nu$  and  $\bar{\nu}$  (with the intensive  $\gamma$ - irradiation and consecutive elimination of the charged particles) and the massive separation of the charges without the fields (without the work!). After an elimination of the gravitational field, analogically, one makes the "Flying Carpets".

Due to the net convergence of "strange" facts, established and well known, which the Triumphators left without comments or replaced by the new abstract postulates (without the PHYSICAL explanation), the sole target of which was the approach to an experiment, the author can stipulate (already since now), that these Bases of the Einstein-Bohr Physics are EXPLODED and moreover, the SERIOUS nature of the electrical and gravitational fields of (even) the XIX century Physics (but which are extremely important in Atomic Scale Physics) was firstly discovered, COMPLETING this the most general real conception of Atomic Scale Physics as the one sole entity.

So, with a help of New discovered Force and the consecutive chain of the discoveries, Principally New Physics was created, including th new developing lin in

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Nuclear Physics which must overthrow all Theory of Matter (the most elementary particles): Theory of Quarks, where there is a large number of discovered artefacts, beginning from the Grand Falsehood: that  $E=mc^2$ . Moreover, this Complex of the Titanic unexpected Discoveries is already clearly confirmed by the proof of the existence of Other Universes (due to the particle rays from the particular areas of the sky), the light from which is, principally, invisible (for us), because it, justly, cannot pass through the empty (without neutrinos) space between Universes, according to this invention. This correct global domain of Human Knowledge must rapidly become the Human property with its consequences in the Cosmic Odyssey, Energetics or Atomic Scale Physics where it is, firstly, shown that the Life can be infinite, even without the Sun.

The above discoveries were published in 1999 (WO 99/56288). Here is the development. The precise considerations of Michelson's experiments (and also the proofs like the Mercury precession) prove that Theory of Relativity is the best bluff of the Science and Technics History. But my calculations produce the means to measure Earth's vectorial speed and to have the precise orientation of the direction in the absolute space without any landmark. The Solar System origin, very ingeniously surely confirmed (with the process of the neutro star creation), gives the data about Interior Structure (and very important functioning) of Sun, Earth (and even the Moons) and the Planets: the dense interior neutro nucleus (core) with the rapid and independent rotation and the exterior part (less dense but also with the rotation). These rotations, with the precession of these 2 independent (partially) parts, provoke the very important unknown interactions of their moving charges, that create one "magnetic" force to interior (down) (except Venus: to exterior) and the periodic forces (to interior- to exterior) of the modulation due to the Euler's nutation. In the case of Sun, it is perfectly proven that there are the 4 nonequivalent nutations, which prove the cause of the sunspots (with proven periods of 11, 22, ~40 and ~80 years). The causes and the prediction of the seisms and climate, the volcanic activity destruction and the islands creation are the consequences as also the utilisation of the energy of the Big Bang conditions and the global falseness of 2nd Thermodynamic law.

Previous Art. These discoveries were deposited to the Industrial Property already in 1996 /FR-96-10952, filing date 09/09/96 and FR-96-14393 (25/11/96) and FR-98-06595/. But nothing indicates the end of the Einstein-Bohr Physics, made by the recognized Giants of the Science. "The Quantum Physics constitutes a body of the extraordinary beautiful doctrine that accords perfectly with facts and experiments" (Prof.A.Abraham's note: A preface to the special number of the journal "Scientific American- Pour la Science", June 1994, entitled "Quantum Physics"). One can take the Courses in Physics of Landau L. & Lifshitz E. /1/, of Feynman R.P. /2/ or of Berkeley /3/

for the Previous Art of this Invention, because I develop the New Global Physics from the facts and theories, well known to all Physicists as already the perfect Classics, proved forever.

§1. Real physical basis of "magnetic" forces: very important force discovered as consequence.

The "magnetic charges" were introduced earlier during a historical research process, but, in reality, they do not exist and the "magnetic" field appears only due to interactions of the Coulomb mobile charges. During their movement there is an appearance of the special forces which approach the same charges, moving in the same direction, and repulse them when they move in the opposite directions. It means, the "magnetic" force is only the another force of the interaction of the real electric charges (only when they move). As a result, one must consider that there is no "magnetic" field when there is no movement of the electric charges. But because of such historical origin of the magnetic preexistent charges, one has missed the discovery of an existence of the very important interaction, because, very logically, it is the relative movement of the electric charges that is the most important for an appearance of the "magnetic" forces. And it is the distortion of the electric field that provokes the appearance of the force (justly the "magnetic" one) which makes the opposition to such distortion. At the end, it is a confirmation of the General Principle of Le Chatelier.

When the two electric currents move in the same direction (when the fields move together) there is the repulsion by the Coulomb force of the charges (the resulting movement takes place in the diagonal direction between the directions of the original speed and the repulsion force). The new "magnetic" force is justly the opposite force to this Coulomb force of the distortion. And on the contrary, when the electric currents move in two opposite directions there is already the distortion of the Coulomb fields because of their RELATIVE movement and the arising "magnetic" force, this time, helps the Coulomb force in requiring the decrease of this distortion. The agreement is clear. The magnetic charge does not exist and it is only the EXISTING electric charge and its field and their relative movement that are the material origin of the magnetic interactions (or rather "magnetic").

After such profound comprehension, I discover the force, unknown until now, but which is extraimportant in Atomic Scale Physics. During the mobile electron rotation around the nucleus (that is much larger), which moves, however, along the small orbit in following the electron movement (wherein it is the mass center that rests immobile) /4,5/, the electric force attracts the electron to the nucleus (during the orbit establishment in atom, for example) in making the field distortion. And the Nouvel Force must arise in repulsing the negative electron from the positive nucleus. In the case in situ, when the nucleus does not follow exactly the electrons (several electron presence; nucleus and electron rotation around their axes) there is also the

evident distortion of the electric fields during the electron rotation on the orbit around nucleus.

## §2. Discovered Nouvel Force and Quantum Mechanics: annihilation.

Evidently, with the approach to the nucleus, this force must increase well, because the angular electron speed, justly determining the intensity of the field distortions, must become stronger. Evidently, an influence of this force (and of the corresponding field) on the electron orbital movements must be very important. This signifies clearly that, even without the exterior "magnetic" field, there is a presence of the interior magnetic field (in atom). Logically, the nucleus rotational axis determines the symmetry of the field and the "magnetic" forces (projection axis).

And the well known classical experiment (which is without a real explanation) of Stark /1-3,6/, with the line separations in the atomic spectra, in the exterior Coulomb field, is well clear since now: the exterior Coulomb field, justly, reacts with the mobile electric field of the electron wherein the direction of the electron rotation around its axis (spin) plays its role in the increase (until resolution) of the spectrum line separations, confirming, after such well established experiments, the validity of this discovery. It is very difficult to imagine that, without the exterior electric field, the electrons, with the same quantum numbers, are found on the same orbit in making the obstacles to their stationary movement.

Evidently, the Schrödinger equation, which does not take into consideration this energy of the interactions, is not (at least) precise apriori. The relativistic correction of Dirac /1-3/, trying to explain the experiments of Zeeman with the analogous separation (until resolution- Y.Z.) of the spectrum lines in the exterior "magnetic" field, is strange apriori because the linear maximal electron speed (in taking the one sole "wavelength" of electron movement) is less than 0.5% of the light speed during the "transition" from the excited "orbit" (or rather movement) to the fundamental orbit (in taking the Bohr radius  $r_0$  equal to  $0.52\text{\AA}$  and the light wavelength-  $\lambda=1215\text{\AA}$ ), that must conduct to the negligent relativistic correction.

In reality, without the precise equation, they took the empiric corrections. For such rotation of the charged electrons around their axes, they took from the experiment, according the hypothesis of Goudsmith and Uhlenbeck, the ratio, between the magnetic and mechanic moments  $g_s$  (gyromagnetic relation) equal to 2.002 /1-3,6/. In the case of the rotation around the nucleus, this ratio is equal to 1, without explanations! It means (even without having the correct bases of the fundamental equations) they took the approximative values according to the additional hypothesis without an explanation to satisfy APPROXIMATELY to th xperiments at such level. Evidently, it is the impass for a more profound development.

But from such extraimportant force, well hidden from Einstein and Bohr, Schrödinger and Maxwell, Heizenberg and Fermi, one can mesure precisely the speed of the charged particles (the neutron with the equal charge presenc /7,8/ comprised)

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simultaneously with their coordinates! In putting, for instance the scintillating rigid screen on the particle trajectory /9, EP 303730, EP 307271, EP 235387, EP 701146, EP 601176, WO 92/15026/, one can know precisely the particle coordinates. And in putting the Coulomb charge with the minimal possible mass and with a shield (the shield for charge, excepting the direction to the scintillating screen) and in measuring (with the formidable sensitivity as, for instance, yet the Physicist Coulomb did /3,10/) the force, acting on this revealing charge, one can well know the precise speed of the particle in the spot near the screen. This speed must be proportional to the measured force (evidently, in making the correction for the pure Coulomb interaction). Such process (for the simultaneous measurement of the coordinates and the speed) must be very important for the development of the interconversion and interaction processes in the Nuclear physics, that costs solid sums.

But such technical development changes already principally the bases of the Quantum Mechanics, according which the coordinates, energy and quantity of movement of the particle like the electron "do not have the well determined values in each moment" /11/. And according De Broglie: "If there were experiments that permit us to know exactly all values, attributed to the corpuscle, the relation of Uncertainty of Heizenberg would not be evidently satisfied any more.. After such experiment, one will not represent the state of our knowledges by the wave  $\psi$ " /11/. Justly! It means it is already clear that this principal experiment will be sufficient to demonstrate that the bases of the Quantum Mechanics are not correct. Moreover, one will see that even the Quantum Principle and the Dualism Wave-Particle are not correct.

And again, if the particle coordinates and the speed are present there would be no probability for the particle to be in the determined spot with the determined speed. It means there is no waves of probability (of De Broglie). "Such experiment (according L. De Broglie), in principle, cannot take place because even of an existence of the quantum of the action" /11,12/. Accoring to A.Einstein, "an indetermining aspect appears in the Quantum Mechanics because of a failture of the complete description but not because of this propriety belonging to the matter" /13/. Moreover, A.Einstein considered, justly, that "later the theory will impose that will avoid the statistic character but which will introduce an important number of values in the theory" /13/, that I develop here, principally.

Logically, these electric field deformations during their relative movement are the origin of the change of the value of the electric field E vector with the time (t) (1st derivative). One can make an analogy of the rotation of the electron around the nucleus with that of the Moon (showing the same surface to the Earth) around the Earth, showing all its surface to the Moon. And in taking into consideration the spin (rotation around own axis) of the electron (and of the nucleus), one can compare the rotation of the electronS with the rotation of the Earth around the Sun /14/, having its own rotation around its axis (25 equatorial days) /15/, although the



gravitational forces are negligent in comparison with those of Coulomb /7/. In supposing (for the simplified global calculation) the nucleus as immobile (and without taking into consideration the small corrections made by the electron spins), one can easily calculate (analogically with the acceleration during the angular movement) that the  $\partial E/\partial t$  value is equal to the  $E\omega$  (where the  $\omega$  is the angular speed) or equal to the  $EV/R$  wherein the  $V$  is the linear speed of the electron rotation and the  $R$  is the rotation radius. Because the  $E$  value is inversely proportional to the 2nd power of the  $R$ , the value of this derivative of  $E$  with  $t$  is inversely proportional at least to the 3d power of the radius. Evidently, with the  $R$  decrease, this force, that repulses the electron from nucleus (because of the field deformations), must grow quicker than that of Coulomb (inversely proportional to the 2nd power of the  $R$ ). And justly this must determine the minimal discrete orbit of the electron. This is already the fundamental difference with the principles of the Quantum Mechanics. The nature of the force that prevents the electron to take the fundamental orbit, again lower than  $r_0(a_0)$  (minimal Bohr orbit), justly, was not known /12/.

The connection of this derivative of the  $E$  (with  $t$ ) with the rotor of the  $B$  vector of the magnetic field by the Ampere-Maxwell equation has not to be precise because this equation was done (or rather conceived) by Maxwell for the qualitative change of the  $E$  modulus. The precise equation for the stationary electron movement will have the sole stable solution for the  $R$  distance from the nucleus (the  $R=r_0$  and the tangential speed  $v=v_0$ ) because the spectrum lines are the same for all particular atoms.

In the case, when the charge movement direction is perpendicular to that of the electric field in the case of the stationary electron in the atom, there is no creation of the waves and the energy does not have to diminish. But after the disequilibrium (the vertical direction) after the atom excitation, the electron returns in the direction of the nucleus (when its radial speed becomes zero and the New Force is weaker than that of Coulomb) in approaching the nucleus at the distance that is shorter than that of the fundamental orbit. As a result, there is some classical oscillator with the fundamental orbit as the circular trace of the radial equilibrium mean line wherein the dependence of the radial speed of the electron returnings on the Radius is 1/~ to superior power. As a result, with the  $R$  increase (or of the increase of  $\Delta E$ : potential energy difference of Coulomb field) during the imbalance action, the frequency of the electron periodic movement must increase with, evidently, the same tangential speed. This is clear confirmation of the experiments as the photoelectron effect /1-3/. But the Einstein-Bohr Physics never explained such PARADOX, because the energy of the classical wave depends on its amplitude (the square of the modulus) (but NOT on frequency). At the end, it is the another confirmation of the New Force existence (§1). After the oscillations in the direction of the static electric field there is the creation of the electromagnetic waves due to, justly, the New Force (after the relative

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d formations of the electric fields), justly once more, directed against the electric field deformation (Le Chatelier Principle). The part of this force (due to the electron movement in the direction of the Coulomb field), in the direction against the movement, diminishes additionally (to the simple transformation of the kinetic energy into the potential) the kinetic energy in transforming it into the energy of the radiated electromagnetic wave.

Evidently, this movement (after the excitation) must be quasi-stationary (with, for instance, the interference) with the complete number of the periods in (at the end once more) fundamental orbit. And at the very small sizes of the electron and nucleus, relatively to their distance, and at precise (!) direction of the electron radial movement to (and from) the small nucleus, the fine geometric special accord of this particular wave of the electron movement in the atom must take place. The very elevated percentage of the energy transformation into the heat (evidently, because of a more general disaccord with the chaotic excitation) confirms the necessity of the very fine accord. The oscillations (at the beginning) of the electron around the nonfundamental orbits can take place because of the increase of the electron tangential speed (change of the radius and speed) wherein the two returning forces (during the oscillations) are weaker (with the distance R from the nucleus) and produce the oscillations with a weaker amplitude and frequency. The consecutive obligatory experimental return on the fundamental orbit (with oscillations around it) (existing evidently for each electron) confirms well the existence of the one sole stable solution for the equilibrium of these two forces (of Coulomb and New)-  $r_0 - v$  (tangential).

So the superior orbits (representing the equilibrium mean lines for the oscillations) are also discrete, without this strange quantum principle, because, for instance, the energy of even the small electron is not quantified at the atom exterior, according to the spectra of the cosmic hydrogen atoms, wherein these spectra are continuous since the end of the series of Lyman /5/. Evidently, such wave is not purely sinusoidal but it must contain the group of the sinusoidal waves (according Fourier). Such perfect accord helps to explain the "strange" dependence of the angle between the absorption and emission oscillators on the absorption band (the particular transition) of the dye /Refs.18/. When the wavelength of the transition is long, these oscillations coincide (evidently because of a smaller amplitude and a more stable configuration of the quasi-stationary "wave" in the molecule). And an increase of such angle with the frequency, evidently, must take place because of a less stable configuration of the quasi-stationary "wave" with the increased difference of the potential energies (in the Coulomb field) of the orbits.

In the Quantum Mechanics, the quantization of the electron orbits is due to the obligation to have the entire number of the "waves" (of the radiated light) along the orbit length /19/, which is determined already by the quantization of the electron

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potential energy. As a result, the electron can only have the particular orbit and transform its potential energy from this orbit into the electromagnetic wave, having the "period" ("frequency") of such orbit (the entire number of these periods /17/) "in knowing"! In fact, that the orbit has already such values, that was not accepted by A. Einstein ("The wave in the space of 3N atoms wherein the speed is settled by the potential energy" is not supportable /20/).

But why must the lines of the correspondent spectrum at the quantum numbers  $l$  (due to the orbit ellipticity, according to Sommerfeld) appear in the hydrogen atom and correspond to the same fundamental orbit? And really, one cannot see such decomposition in the hydrogen atom. After the numerous experimental, well precised efforts, absolutely necessary for the veritability of the Quantum Mechanics and theoretical calculations, they found (instead of the numerous lines of corresponding spectra to such quantum numbers  $l$ ) only the two components, corresponding to the same transition  $n=3 \rightarrow n=2$  /21/. These two components must correspond to the electron spin rotation. This rotation (on the fundamental orbit) must be fixed with the general stability (free energy minimum) between the Coulomb static field (nucleus and electron) and the field deformations due to the 2 types of the electron movement: the orbital and spin. Logically, with the quasi-stationary movement of the Oscillator after the excitation, the electron spin rotation does not change the direction, that produces the two waves of the electron movement (with the 2 spin types). It means these two lines of the hydrogen atom spectrum correspond well to these movement waves. But according to the Quantum Mechanics, in the helium ions or atoms, the numerous spectrum lines, corresponding to the quantum numbers  $l$ , must take place according to their theory. One explains such disagreement between the experiment and the theory by the broadening and the complete fusion of these numerous lines into the two ones (justly into the two lines!) due to the Doppler effect. But in reality, it is not even serious because: (1) there is no dependence of this fusion on the frequency of the transition (there is still the same fusion even for the long wavelength  $\lambda=6562\text{\AA}$ ,  $n=3 \rightarrow n=2$  - Balmer series) but this broadening due to the Doppler effect is proportional to the frequency; (2) this spectrum type is the same for the helium ion although the distance between the spectrum lines is the four times more but the broadening is inversely proportional to the root of the nucleus atomic weight /21,5/; (3) the optic spectrum of the helium atom (with the two electrons) has already the numerous lines, corresponding to the quantum numbers /19,21/ (see below); (4) due to the Stark effect, the hydrogen spectrum lines (and helium ion) decompose also into the certain number of the components /5/ due to the already mutual interactions during the deformations of the electron electric field with the nucleus one and with the exterior field. I stipulate that these experimental facts, VERY WELL ESTABLISHED, but strange for their Physics, help me clearly to explode this Einstein-Bohr Physics, established by the most prestigious scientists from beginning of the XX century.

... But when there is already a presence of the electron on the fundamental orbit (the lowest), one must calculate the fundamental orbit for the 2nd electron, taking into consideration the relativ movements between this electron and the nucleus with the 1st electron and its spin too. And the stationary orbit and the quasi-stationary sinusoidal movement of the 2nd excited electron must accord well, justly, with the 1st electron on this fundamental orbit, that corresponds well with, so called, an appearance of the numerous quantum numbers | since appearance of the extra electron in the helium atom /19,21,15/.

It means the special principle of the quantization in the atom (moreover, only in the atom!) of the potential energies (moreover, before the radiation of the electromagnetic wave) is not correct. And it is the level and the form of the corresponding fundamental orbit, that determine the discrete levels of the electron orbitS because of the CLASSICAL physical circonstances, created by the intraatomic forces (the New Force included) (to have "the wave" of the electron movement WELL quasi-stationary, that radiates the electromagnetic wave). And these discrete levels appear not due to the special postulats, based, at the end, on the Principle of Uncertainty of an impossibility to know precisely the electron state (its coordinates, speed and energy /E/ at the same time) and on (as the result of this Principle) the Duality Wave-Particle, and, consequently, on the  $\psi$  function (very abstract), the modulus in the 2nd power of which determines the governing Probability of the electron to be in such or such spot of the space. "The  $\psi$ - function does not reflect the real situation but rather it expresses the contacts of our knowledge of the situation. But consequently, the laws of the nature which we can formulate, do not apply to follow the change with time of something that exists, but rather apply to follow the variations with time of the content of our legal expectations" /20/. This lettre of A.Einstein confirms this last fragment with a help of his physical sense.

§3. Theory of Relativity and its consequences are not correct in the sense of physical events in situ de facto. Consequences.

I showed that the Dirac relativistic correction in the equation of Schrödinger as well as the principle of the dependence of the events (in atoms) on the Observer (who is present also in the Theory of Relativity) are not valable principally. It means, consequently, one can suppose that, already, the Theory of Relativity is false in situ, that is well confirmed below.

The Sun, in reality, contains the gigantic currents of the charges (being completely ionized) with the plasma convection in the surface layers and even with the own rotation around its axis /15,Refs.23/. The "magn tic" field, born fr m such interactions, is well visibl due to the Zeeman effect, incr ased at the solar blobs /5,15/. But, naturally, such pow rful l ctric and magn tic fields must well influ nce the light propagation near the Sun. So the attribution of th light d viation from its linear traject only to the space curvature, evidently, is n t correct. For instance, ev n

the very strong static field (millions volts) eliminates all light from the atomic spectra! /5/. Logically, as a result, one can read /24/: "Evidently, the data, concerning the light deviations are not good (in spite of the constant repetitions- Y.Z.). All that one can say: the magnitude is correct only approximately".

5 A grand number of results, considered as very serious, concerning the impossibility to increase the electron speed in the particle accelerators, in reality, does not prove a validity of the Theory of Relativity, because one forgets, the electric field also moves with the light speed and the electron acceleration (that moves with such speed with its field) by the exterior electric field is not possible. Paul Langevin wrote it yet in 10 1923 /25/: "The electric force lines, attached to the centre (of electron) tend to displace transversely to the movement direction (also the exterior field direction- YZ) and when the speed reaches that of light, such lines will be completely transversal".

But the well known experiment of Michelson, claiming that one cannot have the speed greater than that of light, clearly, does not prove it, although the tactic of this 15 experiment is well fine. Firstly, the speed of the light propagation is determined by the speed of the induction of the variable magnetic field from the variable electric field and oppositely. And after the falsehood of the Duality Wave-Particle, proved with the New Force (§2), the light is the simple wave, evidently without the inertia. And this wave does not have any relation with the Newton's Mechanics. The thesis that the 20 light is particle, is based only on the linear light propagation. As a confirmation, according to the characteristics of the light radiation by the atom, one can change (by the radiated atom movement) only the radiation frequency, but not its speed (of the propagation of the electromagnetic nature) and when it is the Earth, that moves in the direction of the radiation source (also the effect equivalent to the Doppler one) (with 25 the Earth relative speed equal to  $v_t$ ), the relative speed of the light of the source is equal to  $c + v_t$ , that is interpreted today as the "frequency change". Moreover, one must take correctly the path length, traveled by the light in the direction, perpendicular to the Earth movement, taking into consideration the movement of the reflecting mirrorS (with the Earth speed) during the light run (the sum of 2 30 hypotenuses), that was not taken into consideration by Michelson (but was taken later /24/). And again, one must take correctly also the mirrors displacement (with the Earth speed) for the light run length in the Earth movement direction during this light run time (that was not done since Maxwell!!!). After such 3 modifications, one calculates that the time difference between the two runs is well negligible:

$$\Delta t = \frac{2l}{c} \left[ \frac{1}{1-\beta^2} - \frac{1}{\sqrt{1-\beta^2}} \right] \quad (\text{where } l_0 = 11\text{m and } \beta = 10^{-4}, c - \text{light speed.})$$

35 it means  $\Delta t = 2.3 \times 10^{-16}$  sec, and it is several times less than the duration (at least  $2 \times 10^{-15}$  sec) of the light reradiation (presenting several times // on the optic path) and it must give the length shift (traveled by light) about 7 times less than the 40 wavelength ( $\lambda$ ). Even the best consecutive experiments could not exclude the Earth

speed less than 5 km/sec, it means 6 times less than the real speed with other imprecisions (besides of the displacement of the interference fringes) take place in the experiment errors /26/.

As a result, the difference of the runs cannot be detected in this experiment, that was, justly, registered by A. Michelson /26/, confirming these calculations, based on the Newton's Mechanics. All this signifies that the objective proofs of the Theory of Relativity are absent. Evidently, if the Observer measures, with the light speed, the movements with the speed values, close to those of the light, one would have the results according to A. Einstein, but it is not the reality taking place in situ de facto. There is no any known force that conducts to the mass increase. The very abstract theory, without the data and without the confirmations, presents now something that can only convince an imagination, but not plus.

Consequently, there is no mass (m) elevation and the extremely known equation of a fantasy of a disappearing and appearing world:  $E=mc^2$  is pure fiction. But during the Sun helium synthesis there is the positrons creation /15,23/ and the mass annihilation of the electrons and positrons (by Einstein!) must take place. During its life, the Sun had to lose the mass well nonnegligible /27/. But the Geologic data gives the proofs, that are "irrefutable that the Sun had to have the same mass" /27,15/ as now /15/. And they resolve this striking contradiction by a proposition that during milliards of years, the Sun "asked" exactly the same quantity (not more, not less!) of the meteorites and the comets to compensate its mass loss /27/. It is too naive and is not even scientific. Moreover, even on the Earth (having a much higher relation "surface /volume", than the Sun and being closer to the zone with the meteorites) there is no appreciable quantity of the meteorites (for instance, according to the archeology).

The experiments, demonstrating the properties of the light as the particle with even the mechanical properties /1-3/ as the quantity of movement, are only wrongly interpreted. The Compton experiments /1-3/ must be interpreted as the induction (by the vectors of the electrical and magnetic forces of the electromagnetic wave) of the vibration of the matter electrons, which make the wave energy dissipation into the heat or/and transform it into the secondary radiation with the longer (or almost the same) wavelengths. This property depends on the matter: the Compton experiments were, justly, made with the paraffin block, that easily dissipates the energy. But the Bragg experiments (wherein there is the wave reradiation by the sodium atoms in the NaCl crystal) do not show the energy dissipation because of the rigid crystalline structure. And it was, at the end, well known! According to Langvin /23/, if the light falls on the conductor plane, firstly, the wave E vector would force the electron to displace in the vector direction, perpendicular to that of the incident wave propagation and afterwards the magnetic field vector makes the electron oscillations in the direction, parallel to that of the incident wave (according to the Lorentz law). And the

famous photoelectric effect is explained very clearly since now: it is due to a larger wave AMPLITUDE (naturally!) with a high frequency, that the electron oscillates with a large own amplitude until the moment when it can "jump" from the metallic plate. Concerning the properties of the (so called, yet now!) "electronic" waves, it is the waves, reradiated by the electrons of the crystalline lattice atoms after their interaction with the incident electrons (the particles!), where as a result, the electron loses its quantity of movement.

One can clearly resolve the scientific contradiction of centuries between Newton and Huygens, concerning the light nature. I. Newton was wrong because he did not know the Maxwell discoveries, relating to the electromagnetic mechanism of the light rectangular propagation in the empty space (the vacuum). But why does each point (on the wave propagation path) radiate the waves in all directions in the matter, but not in the vacuum? Of course, it is the secondary waves, reradiated by the electrons of the matter (where the light propagates). But how can one explain the waves, propagating in all directions (the diffraction mechanism) during the slit action in the vacuum? But justly, it is not the vacuum (the absolute vacuum)! The light with the wavelengths, equal to the several thousands of Angströms, must already pass near the crystalline lattice with the small atoms ( $\sim \text{\AA}$ ), in inducing, of course, the electron vibrations of the lattice atoms, and this light radiation (secondary!) takes place already in all these directions. The clarity of the conclusions is perfect and I do not see any problem.

#### §4. New Laws for Atomic Scale Physics and Cosmogony of Universes (Superlaboratory of Atomic Scale Physics).

But the  $E=mc^2$  equation falseness conducts to the Mass Conservation Law and as a result, there is no disappearance of the electron and positron masses after their "annihilation". This signifies clearly that there is the particle creation (during this interaction) with the same masses but without the charges. But these particles must be the electronic neutrinos and antineutrinos ( $\nu_e$  and  $\bar{\nu}_e$ ) which must have the same mass ( $e^-$  symbol signifies the electronic, evidently). Evidently, their determination is very complicated /9,28/ and one loses them quite simply, in postulating, "normally", "the annihilation" of the electron and positron masses, that "creates" the energy of the  $\gamma$ -rays, appearing after the collision between the electrons and positrons! Moreover, during these experiments, there is an appearance of a grand number of particles /28/ (because of the equipment matter!). It means all was clear in the negative sense.

At the end, we know that "the neutrinos are generated during the collision by the neutronisation and by the thermal emission. The thermal mechanisms proceed by the annihilation of the  $e^-e^+$  pairs (real and virtual)" /29/. Consequently, there is no conservation of the mass and the neutrino mass is equal to zero /29,17/. But with the falseness of the equation  $E=mc^2$  and with the absence of the basic principle of the

mass annihilation, one concludes that the neutrino and antineutrino must have the same masses as the electron and positron and during this reaction there is the transformation of the electrons into the neutrinos and the positrons into the antineutrino with the radiation of the electromagnetic waves  $\gamma$  (energy). It means, one can create the charged electron from the neutrino with the irradiation help. It is rather the transformation of the neutrino with the energy help into the "excited" state (it means charged), called the electron. As a result, the creation of charge with the irradiation help is possible since today!! It is new Superlaw of the Universes, that changes our mentality and the view of our the most global conceptions. And the new experiments of the "Science Fiction" appear. What energy spectrum must the neutrino absorb in order to become the electron? And again, the superquestions, concerning the unknown structures of the particles: what does the radiation of the electromagnetic wave mean (from already the particle)? Where is such "quasi-stationary wave" situated (§2)? Does the difference exist between these  $\gamma$ -rays and the "normal"  $\gamma$ -rays? Or rather: does all  $\gamma$ -rays are, justly, of this origin:  $e^- \rightarrow \nu + \gamma$  and  $e^+ \rightarrow \bar{\nu} + \gamma$ !

The data with the neutrinos confirm exclusively these results. The most important neutronizations are: 1. The electron capture by the nucleus with the creation of the neutrino and the neutron (or proton) in the atom. 2. The electron capture by the free protons with the creation of the neutrino and neutron /29/. In reality, these two processes are not, indeed, correct. It is known that the neutron is heavier than the proton (the mass of the neutron is: 939.6 "MeV" and of the proton is: 938.3 "MeV") /17/. It means, their difference (1.3 "MeV") is more than two times more than the electron mass (0.511 "MeV").

Evidently, one can make the very effective detector of the neutrinos and antineutrinos, in irradiating them with the intensive  $\gamma$ -rays, because the charged  $e^-$  and  $e^+$  can be well detected, for instance, with the help of the perpendicular (to their movement) magnetic field and, for instance, with the help of the camera, similar to that of Wilson, or with the help of the scintillating screen on their trajectory /9/. This neutrino and antineutrino detector can be made analogically with the neutron determination with the 2 layers /EP 246060/. In the 1st layer, the  $\nu$  (or  $\bar{\nu}$ ) are transformed into the charged particles ( $e^-$  or  $e^+$ ) with the irradiation help and afterwards these charged particles change the conductivity, registered in the 2nd layer after their penetration in this layer. The neutrino (and antineutrino) detectors (of today) are very ineffective /9,23/ because of the very weak neutrino interactions with the matter.

The telescope for the neutrino determinations can be also made with the help of the transformations of the neutrinos (antineutrinos) into the electrons (positrons) with the powerful  $\gamma$ -rays before the entering into the telescope. The images of the electron (positron) rays can be made as in the electron microscope (this time with the



telescope positions of the electronic lenses). One cannot even exclude that the extra-Civilisations (the existence probability of which is very strong— see below) make their signals with the  $\nu$  (or  $\bar{\nu}$ ) rays (modulated), which can move with the speeds, much stronger than that of the light! The test of this probability is not so complex.

As a result of the transformation reactions of the protons and neutrinos /30/, and also the Cosmogony data (see below), one can consider that the neutron contains the proton (and positron). And the rest of the mass must belong to the other light particles as the gluon, which must be necessary to "glue" the neutrons with the protons. The zone of the atom special stability, where the quantities of the neutrons and protons are almost equal /30/, confirms a presence of such particle in the neutron. Moreover its mass is very small /17,32/, but like the neutrino, the gluon must have it, like all particles.

The proton bombardment with the help of the antineutrino produces the neutron and positron /30,29/. In reality, these data must be wrong. This proton has to be transformed into the neutral particle (as the neutron) but already without the positron (although the normal neutrons can also be created from the antineutrino and proton /with energy/). From the Cosmogony data, one can find the support of my thesis of the creation of the new particle, similar to the neutron (and the proton), without the charge, but also without the electron and positron (and gluon). In the Supernova stars, where the temperature increases until  $10^{11}$  °C (!), all "neutrons" go very rapidly to the star center after very strong and rapid star explosion, together with the powerful outside currents of the neutrinos and antineutrinos.

At such temperature in the star nucleus, all elements as the iron (of the star nucleus) are ionized and their electrons are free /33-38,27/. But the reason of such powerful explosion is the interaction of the electrons with the positrons, that, justly, are also free at such strong temperature after the transformation of the proton into the positron and neutro ( $n^*$ ) (as I name this new particle). The very strong quantity of the explosion energy (99.5%) is transformed in the energy (kinetic!) of the neutrinos and antineutrinos /38/. The neutro ( $n^*$ ) must be the particle with the similar mass to that of the neutron (although less than the proton) and without the charge (net). It means this must be the "classic" neutron, but without the electron and positron (and gluon). And justly, these neutros move rapidly to the star center. If the properties of the neutrons and neutros are different (it means it is the different particles), the facts would confirm cela. It is known that the neutron stars (the rest after the Supernova explosion) are sufficiently liquid /38-40/, and with each period of the star rotation, its magnetic axis changes the direction /35/, in confirming the weaker interactions between the neutro star components, which can exist during the enormous time in such isolation (but together) in difference with the neutron, that can exist in the isolated state only ~15 minutes /17/. Although in the nucleus, the neutrinos are stable, participating actively in the support of the nuclear structure

("drop model") /7/. This neutro particle can, logically, have the magnetic properties (in the Lorentz sense) (according to the properties of the neutro stars), which are weaker than those of classic neutron, because the neutro does not contain the two charged particles:  $e^-$  and  $e^+$ , that one can easily confirm.

5 Logically, these neutral particles, clearly obtained after the bombardement of the protons (p) with the antineutrino /29,30/, are the neutros ( $n^*$ ), because one cannot obtain the neutron with, moreover, the irradiation by the antineutrinos (or may be by the positrons, according to:  $\bar{\nu} + \gamma \rightarrow e^+$ ). (But the reaction between the proton and neutron is:  $n \rightarrow p^+ + e^-$  - see above). In reality /29,30/, one ejects the positrons in  
 10 obtaining the neutros ( $n^*$ ):  $p^+ \rightarrow n^* + e^+$  (with the help of the irradiation by the antineutrinos or positrons) (justly, the very clear logical reaction at the Supernova!!!). Consequently, in guiding the antineutrino radiations from the reactors /29,30/ (which "are the sources of the electron antineutrinos") /30/ towards the protons (deuterons) (hydrogen, deuterium /30/), one can obtain easily the neutro particles according to the  
 15 (real!) reaction:  $(\bar{\nu})/ p^+ \rightarrow n^* + e^+$  /30/. The products of this reaction are simple: the positron (which one can easily keep with the magnetic champ) and the neutro, that one can collect with, for instance, the surrounding metallic sphere. These particles ( $n^*$ ) have the tendency to unite as with the Supernova explosion or in the Earth center, even in spite of the high temperature, although the pressure is not so high due  
 20 to the superior well solid Crust. If it is necessary, one can easily purify these  $n^*$  with the classical separation means /41, G 01 T 7/08: EP404681; G 01 T 7/04; EP72279, 238805, EP162751, 188973, 238805; G 01 T 7/02: EP416148, 53364, 143162, 231602/. The neutro as the material (in solid azote, for instance) is the good support of the cible for the Bombardment in the Nuclear Physics because there are the hindering  
 25 artefacts because of the contaminations by the normal supports /28/, made from the same barions.

One can utilize this superinert matter to keep the charged particles as the electrons and positrons in order to mix them in any necessary moment. Such energy source must be important for the Humanity (Cosmic trips included). One can make the  
 30 closed vessel from the neutros in the solid azote (for instance) with the hole for the vessel. One puts, for instance, the neutros between the double, separated by the space, walls (as in the Thermos) and after the congelation, one takes off the interior wall and closes the vessel with the analogous cup (for instance in screwing). One can have the closed vessel of the congelated neutros wherein the accelerator channel  
 35 serves to fill up it by the charged particles. For the best vessel working, one can put the opposit charge under the vessel (th particles will be low down).

The Supernova stars contain the series of the different elements. The Sun belongs to the minority of the stars, that are alone /38/, and one can make the conclusion about the Solar System origin. It is created from the relatively small exploded star,  
 40 because the Solar System mass is ~1% of the Sun mass. It is evident that this vent

had to take place ~5 milliard years ago (the Earth /14/). The rotation of the original fragments (nebula) around the Sun (that were transformed into the planets with such rotations), the same orbit plane of all planets of the Solar System (except, the strange and apparently exterior Pluton, that confirms my thesis) and also a similarity, for example of the planets-giants (neighbours): Jupiter, Uranus, Saturne and Neptune /14/ confirm well my conclusion. As a result, the Sun age must be much more than the 5 milliard years, accepted today /42/. The serious contradictions, concerning the birth place of the Sun in Our Galaxy (with such younger age) /43/, confirm the problem to accept the younger Sun age, supporting my conclusion.

Justly, such systems with the mass ratio ( $M_1/M_2$ ) between the stars equal to 0.02 (in the binary system) were discovered /Refs.44/. When the mass of the principal star is similar to the Sun one, the satellite mass (typically) is less than the 30% of the Sun mass /45/. Justly in these cases, ALL mass of the satellite star is scattered during the explosion and the "neutron" (neutro!) star does not appear instead of Supernova /46/, resembling the Solar System. Logically, because the Sister Star of the Sun was small, the explosion temperature was not so high, so a larger quantity of elements as the iron, oxygen or silicon could rest with the explosion. And the heavy agglomerations of these neutro particles, justly, could serve as the heavy nuclei, around which, at the end, the other components could (already) attach in producing the planets. The astonishing fact, that after the 5 milliard years, "the solid heart (of the Earth) has the quicker rotation (in the melted matter) than the planet rest" /47/, demonstrates that the value of the "heart" angular moment is yet grand (justly, due to the dense mass, logically, of the neutros), in spite of the energy dissipation due to the friction.

Logically, the Sun age (that must be higher than that of the Solar System) appears as the younger one, because there are the currents of the hydrogen concentrated masses in the spiral Galaxies /48/, which "feed" the Sun, that was well known from the proposed earlier theories /Refs.49/. The fact, that in the elliptic Galaxies (where there is no such hydrogen currents), the star ages are similar and sufficiently old /4/, confirms this. With chaotic "feedings", the spiral Galaxy stars have the spectrum diapasons sufficiently large and their real age is also sufficiently old, because the hydrogen quantities of the star (in situ) are always weaker than those, that one can estimate according the state of these stars today, so, evidently, the reaction was continuing more time.

§5. Law of laws: conductivity of electric and gravitational fields is due to temporary transformations  $U \leftrightarrow e^-$  and  $\bar{U} \leftrightarrow e^+$ . Perpetual Motion Machine and "Flying Carpets".

Maxwell, Ampere and other physicists did not believe in the force action by the distance: it was against their physical sense. To explain the distance electric force action de facto, they introduced the signification: the electric field. "The electric field is the space portion, neighbouring to the electric bodies considering according to the

electric phenomena" /50/. Ampere's and Maxwell's pictures with the networks of the electric force lines and the "isolines", showing the electric field, are usual today too.

But in reality, one knows almost nothing about such fields, except: if one puts the charge in the field (space "spot"), it would be the object of the electric force action (de facto). Moreover, the appearance of the vector of the electric force in the empty space without the charges during the electromagnetic wave propagation is unimaginable. But physically, the electric field propagation from point to point of the space (short distance action) must take place from the one material particle to the other one (nowadays field determination is only phenomenological, at the end: it is the vacuum, where one registrates the action of the electric force). And justly, in the absolute vacuum (with the falseness of the Einstein-Bohr Physics) there is the neutrino and antineutrino omnipresence "in the very strong quantities" in Our Universe /51,52/.

And justly, these particles can be transformed (with the ray help) into the electrons and positrons (§4). In accepting that there are the transformation waves /16/ (very momentarily and frequently) of the neutrinos and antineutrinos into the electrons and positrons (repetitively), beginning from the electrons and positrons of the permanent electric charges (activating the charges by the unities), one proves the propagation law of the electric field (electric force) from point to point! There is no any energy loss during these spherical waves /16/. The impossibility to have the electrical force lines (justly these waves of similar mechanism) with the speed higher than that of the light /25,§3/, confirms the presence of these waves. Evidently, the appearance of the electric force  $E$  vectors (and the magnetic  $H$ ) in the vacuum, during the electromagnetic wave propagation, is very natural due to the rapid transformations (neutrinos  $\leftrightarrow$  electrons and antineutrinos  $\leftrightarrow$  positrons).

The neutrino and antineutrino source is the Big Bang /51,52/. As a result, there is no these particles between the Universes and one does not see the Other Universes, principally, but not because of the long distance (or closed space curvature or the absence of Other Universes). It is interesting to see the neutrino and antineutrino rays (by stereo radians of the sky) to localize the distant Universes.

But this Superlaw of the electric champ nature conducts to the Perpetual Motion Machine creation. It does not deny the impossibility to make the ancient Perpetual Motion Machine. For this, one eliminates (or almost eliminate: for the best consecutive separation) the electric field /in eliminating the  $U$  and  $\bar{U}$  in the neighbouring space with the  $\gamma$ -ray help (transforming them into  $e^-$  and  $e^+$ ) and consequently with the magnetic field help/ and separates the charges (beaucoup!!) without, already, the electric fields. In this case, there is no (almost) th work!!! and after the consecutive introduction of the  $U$  and  $\bar{U}$ , this Perpetual Motion Machine must function.

The gravitational field (the analogous change with distance) must also propagate like the electric field with the spherical waves (logically, the continuous) with all the

energy loss (as the vacuum fluctuations /16/) where the sole omnipresent  $\nu$  and  $\bar{\nu}$ , must guarantee the similar short distance action of the forces and the field elimination must be common that facilitates the transport by the transport means ("Flying Carpets"). The light red shift, originated from the space with the strong gravitation /16/, confirms the common  $\nu$  and  $\bar{\nu}$  "service".

The chaos in the Nuclear Physics (because of the false law presence) is well visible /53/: "In the domain of the reactor physics, justly, the well known things are not correct; and the correct things often are unknown" (epigraph). The fact that the neutrinos arrived to the Earth earlier (18 hours) than the light after the Supernova 1987A explosion /Refs.54/ (with their synchronous appearance /38/), shows clearly that their speed was higher than that of the light. This is well confirmed by the fact, that the speed of the striked (by the neutrinos and antineutrinos) particles (in water) was higher than that of the light (in water) /55/. Even a milliard of cases of the light diffusion during pass would not increase the time of such light pass time (less than 1 second), but at the same time, these diffusions for the neutrino particles must be fatal for their arriving. This confirms clearly the bases of the New, developed by me, Physics and the rigidity of the Einstein-Bohr Physics for many centuries in the case of an absence of this work.

§6. The 1st proof (and even 1st suggestion) of sure existence of Other Universes.

Process conducting to the most powerful energy of Existence. Sure confirmation of all these discoveries.

One can well consider that at the periphery of Our Universe, in the intergalactic space, the quantity of arrived neutrinos is less /§5,56,57/. And again, even the mass existence of the neutrinos, well demonstrated (and even precise!) (§4), proves the Big Bang- like process of the Our Universe origin. Consequently, justly, "the most distant object, detected today", is the "intense formation of the stars, associated with the (almost) dust absence" /58/, because of the light propagation absence at the periphery of this formation because of the weak neutrinos concentration (§5). Consequently (also §5), the other existing Universes cannot be visible but their particle radiation can be registrated. And by chance, justly, one can easily distinguish the Universes, with the radiations, very different from those of Our Universe. Evidently the radiations of Our Galaxy (Universe) are much higher for our detectors.

There is the presence of the cosmic rays with the energy more than  $10^{17} - 5 \times 10^{19}$  eV (only of the extragalactic origin) where there is no visible source in their directions /59-63/. Evidently the scientists cannot imagine that these are the Universes because it is impossible to suppose that their light (at the same time) cannot traverse the "frontal" zone between the Universes, which is without the neutrinos. Consequently, the scientists try to explain these powerful radiations by the particle accelerations even by the magnetic intergalactic fields that are too weak to transfer such energy /64/. And again, the deviation by the magnetic fields of such ultrastrong cosmic

radiations are too weak /65/ to suppose other sources of other original directions. The cosmic rays can induct the radio waves (and sometimes the visible light) after the interaction with the other matter /59/ and this must be a reason that the radiogalaxies or QSO (quasi stellar objects), associated with them, and even the unresolved  $\gamma$ -ray blazars are near the direction of the cosmic rays of the ultragigantic energy /66,64,63,67/. Moreover, these particles (the mass must be less than 40 "GeV" /68/) of the ultragigantic energies must, normally, have the speed, higher than that of the light (see below) and the magnetic fields cannot influence them (§3).

Moreover, this is "the exotic particle reacting strongly" (uhecron, hadron) (but not the classic proton) /68,69/ that "originates from sources of the cosmic distance" /69/, that must be present in these extrapowerful rays according to the properties of the "air shower" in the Earth atmosphere /68/. Consequently, one proposes the existence of the supermassive heavy particles X of Our (evidently for them) Universe of the very young age, the radiodisintegration of which produces these radiated exotic particles /70/, already accelerated until the energy of  $10^{20}$  eV! The red shift presence "of intrinsic origin" ("different matter patterns can have the masses of different scales") (but not because of the classic Doppler effect because of the Universe expansion) of the wave radiation with weaker energies of the QSO and of the peripheric Galaxies of Our Universe /68,71/ confirms the exotic character of the cosmic radiation of the ultrastrong energy. Because this radiation includes the Galaxies as the M82 /66/, that is found on the cosmic ray directions of the ultrastrong energy /62/, this wave radiation with the exotic wave shift can be induced, justly, by these particles (also exotic!) of the different Universes.

Evidently, the knowledge of this Universal reaction of the Universes, different from the Our, will give the supertitanic energy to the Humanity, where the particle speed (with the mass similar to that of the proton) is almost 10 times higher than that of the light! (for instance, for cosmic ships moving with the speed more than several light speeds). The researches as the study of the "air showers", the precise topologies of the ray local structures in the stereo radians, the precise original content of these rays and the precisising of the Quark theory (that is not correct: see the proton, neutron and neutro- §4) will permit to resolve this problem N°1 of the Humanity.

The cosmic rays of a weaker energy ( $<10^{17}$  eV), already, full all Our Galaxy in all directions /59,64,51/. "There is no doubt that justly the explosions of Supernovae (already of the fantastic for us energy) are the principal sources of (these) cosmic rays" /59,64,61/ in the Galaxies of Our Universe. But the directions of these rays, normally, coincide with the radiation sources /59,61,60/ that is not the case for the rays with the energy that is more than  $10^{19}$  eV, confirming very well their invisibility (because there are the Other Universes, invisible for electromagnetic waves, because of the neutrino absence between the Universes).

Evidently, the Other Universes (similar to the Our) must be detected as the local

sources (but invisible for the electromagnetic waves) of the cosmic rays with the energy less than  $10^{17}$ – $10^{19}$  eV that is less distinguishable, because of large quantities of cosmic rays with the energy, similar to that of Our Galaxy (and Our Universe).

Evidently, these exceptional conclusions confirm very well the validity of ALL (!) these discoveries and their applications, even fantastic (§§1–5).

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#### DEVELOPMENT.

The discoveries with their titanic applications were published in 1999 (WO 99/56288). But the above text was the exact copy of the National European Phase (N°00200217.8- 10 Claims) of this International original Application (PCT/FR99/01851- 11 Claims), some modified for the clear visibility of the Generality and Unity of Invention.

§7. Einstein's Theory of Relativity Absolute End. Confirmation: Utopy of Michelson's Measurements.

#### 7.1. Introduction.

It is not easy to deny the Theory of Relativity from general physical point of view. The case of already (empirically and intuitively) chosen effective Universal reference frame, defined by the convenient cosmic microwave background is the good example /1-3/. And Albert Einstein general ambiguities very clearly persist unexplainable. For instance, at the relative movement of the inertial systems relatively noninertial accelerated ones (even the same value of the relative acceleration, only in the opposite direction), one must wait the equivalence, but this is not the case. In analyzing the absurdity of the Galileo's inertia law (however existing!) without the absolute space coordinate frame(s), Philip Frank (close colleague of Einstein) had only to state (in his translated book- my student's one), that the elite inertial coordinate

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systems do not exist de facto /4/. But this selectivity of the velocities (and accelerations!), accepted by Einstein, as the only relative ones, must reflect the absolutism of such inequality. At the end of XX century, from the very general experimental positions already, it was shown that, principally, almost all consequences of Theory of Relativity are doubtful and uncorrect and moreover the very clearly established experiments against it, already, exist /5 and below/. Here I develop these conclusions, clearly showing (that is, already, well confirmed!) that the most fundamental, the most famous, the most imaginative base of the Theory of Relativity is pure utopy in spite of very numerous repetitions and very serious discussions by the most famous physicists of XX century. The clearest errors, unfound by Lorentz and Einstein, Maxwell and Michelson, of the Michelson's interferometer measurements are very simple to understand, at the end (illustration N°2), especially after profound surprising reconsideration with perfectly converging data.

7.2. All more recent and more sensitive Einstein confirming experiments, using Doppler- effect are apriori erroneous.

Before Einstein's Theory of Relativity, Albert Michelson accepted with Maxwell that the "light waves are propagated in the free ether in any direction and always with the same velocity with respect of the ether". But with the triumph of the new Physics of XX century, naturally, the situation changed. In supposing (for calculations) the validity of Newton's mechanics, they also took the idea that the light is the corpuscle, because it was also the Newton's idea, although his ground was only the rectangular light propagation, justly resolved by Maxwell as the wave propagation. But recently /5/, again, in the developed already form, it was found the clear error in the basic calculations of the "post-Michelson" experiments, confirming the establishment of the bases of the Theory of Relativity (independence of the light velocity on the Earth movement). Mainly and naturally, again, the velocity of the light propagation is proportional to the velocity of the induction of the variable magnetic field due to the variable electric one. Moreover, the light is only the wave (with energy), made by the periodically moved charged particle, obligatory placed IN the electric field, where as the consequence, there is the obligatory made work (as with the thermodynamic piston) against the, almost equal, new discovered /5/, "magnetic" (magnetic) force, arising during the relative movement (field's deformations) of the electric fields (including those which do not move) /5/. (The pure Maxwell errors in his equations /without such force/ is the simple consequence /5/).

It was shown also that the de Brogli wave-particle dualism is the imaginative nonsense /5/. Also the effect of the skirting by the "dual" light at the slit is the purest misunderstanding, because it is the excitation by the passing nearby light of the neighbouring atoms of the metallic slit that creates the classical spherical (in all directions) Huyghens waves wherein the  $\lambda$  (wav length) is equal to several thousand angströms /5/ (yet my student's finding). So the light electromagnetic wave velocity (in

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vacuum) must be always constant ( $c$ - value) and obviously it does not depend on the inertia.

Consequently, the Doppler effect for the radiating source, moving TO Earth is due to the really decreased  $\lambda$  (in the space of the direction of movement) during the light radiation. But if it is the Earth that moves to such radiating source, the register ONLY records more frequently the periodicity (corresponding to the real  $\lambda$ ) of the light vibrations (due to their increased relative velocity, equal to the vectorial sum of the velocities), producing phenomenologically the same effect of the  $\lambda$  change. So the Earth movement clearly does influence the measurements due to the corresponding movements of the registering devices during the light propagation in the space. If the light source moves to the mirror moving in the direction of the Earth movement, the length of the light pathway (until mirror) increases (plus the pathway, running by the mirror with Earth velocity during the light propagation) and oppositely /5/. As a consequence, all (!) more recent and more sensitive experiments, using Doppler- effect with the Earth situated source /Refs.6/, and influenced ALSO by Earth movement, are simply utopic apriori, because the additional real increase (or decrease) of the  $\lambda$ , due to additional Earth movement of source is ALWAYS exactly compensated by the same movement of the Earth register /in measuring with the corresponding seeming decrease (increase)/ and they do not confirm the foundation of the Einstein theory /5/.

7.3. The basic Michelson experiments of Einstein Mechanics are erroneous. The gravest experimental error in science history.

So now we are ready to realize the most grave, experimental error in the Science History, that yet costs, to the World physics, one century of the basic impasses: the very famous Albert Michelson Nobel experiment /5/.

7.3.1. Time path difference at ONE point  $O \rightarrow O'$  of observation.

Let us, firstly, calculate, at the POINT O (becoming the point  $O'$  at the end of the light movement due to the Earth movement:  $O \rightarrow O'$ ) of the light beam division in two parts (to see Fig.1A with footnotes), the time difference of the parallel ( $\parallel$ ) and perpendicular ( $\perp$ ) (to the Earth movement) beam part paths.

$$M_2 O'^2 = c^2 (t/2)^2 = P'M_2^2 + P'O^2 = l_o^2 + v_e (t_{\perp}/2)^2, \quad \text{where } t_{\perp} - \text{is time for path } OM_2 O'.$$

$$\text{Hence } \therefore t_{\perp} = 2l_o/c \cdot \sqrt{1-\beta^2} \approx 2l_o/c \cdot (1 - \beta^2/2), \quad (1)$$

neglecting the terms of higher orders of  $\beta$  - very small value.

$$OM_1' = ct_{\parallel \rightarrow} = P'O + P'M_1' = l_o + v_e t_{\parallel \rightarrow}, \text{ hence } t_{\parallel \rightarrow} \approx l_o (1 + \beta + \beta^2)/c;$$

$$M_1' O' = ct_{\parallel \leftarrow} = M_1' P' - P'O' = l_o - v_e t_{\parallel \leftarrow}, \text{ hence } t_{\parallel \leftarrow} \approx l_o/c \cdot (1 - \beta + \beta^2)$$

where  $t_{\parallel \rightarrow}$  and  $t_{\parallel \leftarrow}$  are the time for the  $\parallel$  pathway to the right and left (Fig.1A).

$$\text{So, } t_{\parallel} (\text{total}) = t_{\parallel \rightarrow} + t_{\parallel \leftarrow} = 2l_o/c \cdot (1 + \beta^2/2) \quad \text{and}$$

$$\Delta t (\text{at } O' \text{ observation point!}) = t_{\parallel} - t_{\perp} = l_o \beta^2/c \text{ (time difference),}$$

coinciding with Michelson and Morley result /7,8/, although they made more simplified geometric calculations but yet considering (with James Maxwell) "that light waves are propagated in the free ether in any direction and always with the same velocity with

respect of the ether" and tried to find the "ether drift" of changing of the relative velocity between the light and Earth.

Hence the path difference  $\Delta l = l_o \cdot \beta^2 = 3200\text{\AA}$  (at  $\beta = 10^{-4}$  and  $l_o = 32\text{m}$ — Dayton. Miller conditions— /9/) and  $\Delta l = 32\mu$  (at  $\beta = 10^{-3}$ ) at point O'.

7.3.2. Time path difference at ANY point of observation (Fig.1A configuration).

But one can see from Fig.1A, that the time difference between  $\parallel$  and  $\perp$  beam paths depends on the observation point of their meeting, that, however, never was really considered during already the century of the World success and very intensive discussions.

Let us calculate the above time difference at some observation point E (at the distance value  $x$  from O' with order of value of OO' value, it means  $l_o \beta / 2V_e \cdot t_{\perp}$ ).

7.3.2.1.  $\perp$  path OM<sub>2</sub>'E.

$$OM_2 = \sqrt{(M_2'P'')^2 + (OP'')^2} = \sqrt{l_o^2 + (OP' + P'P'')^2} = \sqrt{l_o^2 + (OP' + x/2)^2}$$

$$OM_2' = \sqrt{1 + (OP' + x/2)^2/l_o^2} \approx l_o + (OP')^2/2l_o + OP' \cdot x/2l_o + x^2/8l_o, \text{ where}$$

$$OE - OO' = x, \text{ hence } OE/2 - OO'/2 = OP'' - OP' = P'P'' = x/2.$$

$$\text{Analogically, } OM_2 = \sqrt{l_o^2 + (OP')^2} \approx l_o + (OP')^2/2l_o.$$

Hence  $OM_2' = OM_2 + OP' \cdot x/2l_o + x^2/8l_o$ , so in taking the total  $\perp$  path (OM<sub>2</sub>'E) and dividing by  $c$ , one has:  $t_{\perp}'(\text{path } OM_2'E) = t_{\perp} + OP' \cdot x/l_o c + x^2/4l_o c.$

Therefore, using equation (1) and introducing  $V_e$  in 2nd term:

$$t_{\perp}' = 2l_o(1 + \beta^2/2)/c + (OP'/V_e) \cdot (V_e/c) \cdot (x/l_o) + x^2/4l_o c.$$

Hence with relation  $OP'/V_e = t_{\perp}/2$  and, again, using equation (1), we have:

$$t_{\perp}' = 2l_o(1 + \beta^2/2) + \beta \cdot x \cdot (1 + \beta^2/2)/c + x^2/4l_o c.$$

7.3.3.2. The  $\parallel$  path OM<sub>1</sub>'E.

$$OM_1'(t'_{\parallel \rightarrow}) = ct'_{\parallel \rightarrow} = OM_1 + MM_1' = l_o + V_e \cdot t'_{\parallel \rightarrow},$$

$$\text{hence analogically: } t'_{\parallel \rightarrow} = l_o/c - V_e = l_o(1 + \beta + \beta^2)$$

$$\text{and equally: } M_1'E(t'_{\parallel \leftarrow}) = ct'_{\parallel \leftarrow} = M_1'P' - P'O' - x = l_o - V_e t'_{\parallel \leftarrow} - x,$$

$$\text{afterwards: } t'_{\parallel \leftarrow} = l_o - x/c + V_e \approx l_o(1 - \beta + \beta^2) - x/c \cdot (1 - \beta + \beta^2) \text{ (in neglecting the terms of the order, higher than 2). } t'_{\parallel}(\text{total}) = t'_{\parallel \rightarrow} + t'_{\parallel \leftarrow}.$$

7.3.2.3. So the  $t'_{\parallel}$  (total) decreases with  $x$  and the  $t'_{\perp}$  increases with  $x$ . Let us find the  $x$  at  $\Delta(t_{\perp} - t_{\parallel}) = 0$  ( $\Delta$ - difference). One has the second order equation relatively  $x$  /equation (2)/:

$$2l_o/c \cdot (1 + \beta^2)/c - x/c \cdot (1 - \beta + \beta^2) - 2l_o(1 + \beta^2/2) - \beta x/c \cdot (1 + \beta^2/2) - x^2/4l_o c = 0$$

$$\text{Hence: } x^2 + 4l_o x + 4l_o \beta^2 x - 4l_o \beta^2 = 0 \text{ or even } x^2 + 4l_o x - 4l_o \beta^2 = 0.$$

From both equations, one obtains, naturally, the same result in taking the terms until  $\beta^2$  at the root approximation (Taylor series):  $x \approx l_o \beta^2$  (3).

7.3.3. Time path difference at ANY observation point after 90° rotation (Fig.1B configuration).

7.3.3.1.  $\parallel$  path OM<sub>2</sub>'NS.

From similar triangles  $\triangle P M_2' N$  and  $\triangle N E E'$ :  $EE'/NE = M_2'P/PN$

$$\text{and } V_e t'_{\parallel \uparrow} + V_e t'_{\parallel \downarrow} / y - 2PN = l_o - V_e t'_{\parallel \uparrow} / PN,$$

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where the  $t_{II\uparrow}$  and  $t_{II\downarrow}$  - the times for path  $OM_2'$  and  $M_2'NE'$  correspondingly. After the simple transformations, we get:  $PN = y \cdot (l_o - V_e t_{II\uparrow}) / 2l_o + V_e t_{II\downarrow} - V_e t_{II\uparrow}$

After the approximation (series Taylor) of the above corrected inverse function with the consecutive multiplication (in neglecting /at the end/ the terms of higher /than  $\beta^2$ / orders), one get:  $PN \approx y/2$  (4), where the  $y$  must be already proportional to  $l_o \beta^2$  - §7.3.2.3.). Let find  $NE'$  from the similar triangles  $\Delta OM_2'N$  and  $\Delta NEE'$ :

$$NE' = NM_2' \cdot EE' / M_2'P = OM_2' \cdot (V_e t_{II\uparrow} + V_e t_{II\downarrow}) / l_o - V_e t_{II\uparrow} \quad (\text{where } NM_2' = OM_2').$$

Analogically to the transformations of  $PN$  /in obtaining the equation (4)/, we get:

$$NE' = OM_2' / l_o \cdot (V_e t_{II\uparrow} + V_e t_{II\downarrow} + V_e^2 t_{II\uparrow}^2 / l_o + V_e^2 t_{II\uparrow} t_{II\downarrow} / l_o) \quad (5).$$

From right-angled triangle  $\Delta OM_2'P$ , one has:

$$OM_2' = \sqrt{(OP)^2 + (M_2'P)^2} = \sqrt{(PN)^2 + (l_o - V_e t_{II\uparrow})^2}.$$

With simple calculations (analogically to §7.3.2.1.) in dividing by  $l_o$ , approximating the root (Taylor series: taking firstly until the term of second order) and in neglecting (at the end) the terms of higher (than  $\beta^2$ ) orders, we obtain (after deviding by  $c$ ):

$$t_{II\uparrow} (OM_2') = (l_o/c) \cdot (1 - V_e t_{II\uparrow} / l_o + (PN)^2 / 2l_o^2).$$

Using equation (4), one has:  $t_{II\uparrow} = l_o/c - V_e t_{II\uparrow} / c + y^2 / 8l_o c$  (6),

hence one can find  $t_{II\uparrow}$ :  $t_{II\uparrow} = (8l_o + y^2) / 8l_o c + 8l_o V_e$  (4),

and then after approximation (series Taylor) of the above corrected (division and multiplication by  $8l_o c$ ) inverse function with consecutive multiplication (neglecting the higher terms) (analogically to the, justly, above), we get:

$$t_{II\uparrow} = l_o/c - l_o \beta/c + l_o \beta^2/c + y^2 / 8l_o c \quad (7)$$

From equation (5), one has the time for  $NE'$  light path:

$$t_{NE'\downarrow} = t_{II\uparrow} / l_o \cdot (V_e t_{II\uparrow} + V_e t_{II\downarrow} + V_e^2 t_{II\uparrow}^2 + V_e^2 t_{II\uparrow} t_{II\downarrow}).$$

This equation permits to calculate the time for  $M_2'NE'$  path:

$t_{II\downarrow} (M_2'NE') = t_{II\uparrow} + t_{NE'\downarrow}$ , where analogically to obtaining the equation (7) from (6), one gets the expression for  $t_{II\downarrow}$  with approximation of inverse function, multiplications and simple transformations:

$$t_{II\downarrow} = t_{II\uparrow} + 2t_{II\uparrow}^2 V_e / l_o + 3t_{II\uparrow}^3 V_e^2 / l_o^2.$$

So  $t_{II}(\text{total}) = t_{II\uparrow} + t_{II\downarrow} = 2t_{II\uparrow} + 2t_{II\uparrow}^2 V_e / l_o + 3t_{II\uparrow}^3 V_e^2 / l_o^2$  and using the equation (7), taking even one term from  $t_{II\uparrow}^3$ , making the simple transformations and neglecting the terms of higher orders, we get:  $t_{II} \approx 2l_o/c + y^2 / 4l_o c$  (8)

7.3.3.2.  $\perp$  path  $OM_1E'$ .

With help of the right-angled triangles  $\Delta OM_1R$  and  $\Delta HM_1E'$ , one has:

$OM_1 = c^2 t_{\perp\rightarrow} (OM_1) = (RM_1)^2 + OR^2 = l_o^2 + V_e^2 t_{\perp}^2$ , hence, analogically to §7.3.1., simply,  $t_{\perp} \approx l_o/c \cdot (1 + \beta^2/2)$ .

Also:  $(M_1E')^2 = c^2 t_{\perp\leftarrow} (M_1E') = (M_1S)^2 + (HE')^2 = (l_o - y)^2 + (V_e t_{\perp\leftarrow})^2$ .

Analogically:  $t_{\perp\leftarrow} = l_o/c (1 + \beta^2/2) - y/c (1 + \beta^2/2)$ .

Then,  $t_{\perp}(\text{total}) = t_{\perp\rightarrow} + t_{\perp\leftarrow} = 2l_o/c (1 + \beta^2/2) - y/c (1 + \beta^2/2)$  (9).

§7.3.3.3. So  $t_{II}(\text{total})$  increases with  $y$  and  $t_{\perp}$  decreases with  $y$ .

Let find again the  $y$  value when their difference is zero  $\Delta(t_{\perp} - t_{II}) = 0$ :

Easily with equations (8) and (9), we get the second order equation for  $y$ :

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$$2l_o/c \cdot (1 + \beta^2/2) - y/c \cdot (1 + \beta^2/2) - 2l_o/c - y^2/4l_o c = 0 \quad (10).$$

Hence:  $y^2 - 4l_o y + 4l_o^2 \beta^2 = 0$  and  $y = l_o \beta^2$ , coinciding perfectly with similar calculations for Fig.1A, confirming well the validity of these long calculations.

#### 7.4. Clearest Utopy of Michelson's interferometer measurements.

Now we are ready to realize the (yet) most grave experimental error in the science history. Let realize the formation of the interference pattern in such interferometer. It is not formed by the difference of the light paths due to the differences in the Earth velocities but by the virtual images  $M_{1i}$  and  $M_{2i}$  in the  $M_2$  mirror where these "virtual images... will be placed side by side and we obtain a system of parallel fringes" /10/ and the light path differences of the  $\perp$  and  $\parallel$  directions (to Earth movement) makes only the modulation, redistribution of such pattern (Fig.2).

Let see the shift of any particular virtual maximum at the increasing of the optic path in the telescope arm (" $M_2$ "), corresponding to the  $\perp$  path at the configuration of Fig.1A. It can be done with the increasing of the optical density, in putting some plexiglass at pathway " $M_2$ " (as at phase fluorometer calibration) or due to the delaying influence of the Earth movement in observing the interference closer to point O. In such case, the path difference between the virtual sources ( $M_{2i}A$ ) will increase. And the difference ( $M_{2i}A$ ), that should be constant to correspond to the maximum must correspond to the pattern, situated already more on the left: at  $x_2$ . But at the new, more left,  $x_2$  observation point, the difference between the  $\perp$  and  $\parallel$  pathways increases automatically according to the equation (2), it means the real maximum will be righter, at some point  $x_3$ . So the interferometer is clearly desensitized, because at the shifting of the interference pattern there is the automatic appearance of the additional COMPENSATING (partly neutralizing), always opposite shift due to the dependence of the shift value  $|\Delta(\perp - \parallel)|$  on the observation point according to equation (2). The situation is similar at the geometric configuration, corresponding to Fig.1B. So Michelson apriori could not have the corresponding shift with his measurements and Einstein took the very clear false basis for his postulate N\*1. Consequently, it is clear definitive irreversible end of the Odyssey with very imaginative Theory of Relativity of Albert Einstein, previous N\*1 in the World Science.

#### 7.5. Spectacular experimental, 70 years old, confirmation (already) of author's conclusions.

But such "automatic" difference between the  $\perp$  and  $\parallel$  paths along the observation line  $OM_1$  (Fig.1) must lead to the fringes with the different width. Evidently, at the lowest  $x$  values, the  $x_3$  is more left from  $x_1$ , than at higher  $x$  (Fig.2A).

Evidently, the regular interference (from virtual sources) observable pattern changes (shift to the left) stronger at the lowest  $x$ , with the shift decrease at  $x$  increase (Figs.1A and 2A) that clearly must lead to the decrease of the fringe width with the  $x$  increase until  $x = l_o \beta^2$ . Moreover, my calculations (§7.2.-7.4.) prov also that, at  $x = l_o \beta^2$ , the picture will be relatively more symmetrical than elsewhere because the path

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difference  $\Delta(\perp - \parallel)$  at this sole point is zero and there is the sign change of the said difference in this point but the difference continues to decrease (algebraically)!. Moreover, in spite of the decreased fringe width at this point, the compensating effect ( $x_2 \rightarrow x_3$ ) (Fig.2) will be, evidently, some weaker /weaker influence of "automatic" path difference  $\Delta(\perp - \parallel)$ .

And justly, all these conclusions were, already stated experimentally and this theory does not need to wait the "solar eclipse" experiment. "Under poor temperature conditions... it was necessary to use narrow fringes in which case the full effect is relatively large, as the width of fringes is increased this effect decreases and vanishes only when fringes of infinite width are used" /11/. So in one series of experiments (in Cleveland), when Miller worked at large fringe width ( $x$  are low), the fringe shifts (at  $\perp$  and  $\parallel$  directions) were close to zero but at the low fringes, the shifts were essentially larger /11/. And in finding at last these best conditions, "which give fringes of the same width but which produce opposite displacement of the fringes for the SAME change in one of the light paths" /9/ (reflecting the same distances at both configurations /Fig.1A and B/:  $x = y = l_0 \beta^2$ , where the path differences are zero), D.Miller has found the periodic well distinguishable fringe displacements with the azimuths at whole rotation (2 periods) with clear "diurnal and seasonal variations" /9/. Although, evidently, "the width of the fringes is subject to slight variation" /9/, reflecting, in particular, that the equations (2) and (10) are different although with the same coincident solution.

The configuration of the Figs.1A and B corresponds to Miller's "very careful attention", "required to secure that adjustment of this critical angle which causes the arrow-head pointer to appear to the RIGHT (D.C.M.) of the central black fringe when the light path of the telescope arm.. increases in effective length" /11/. Such configuration corresponds well to "a small group" of "white-light fringes", utilised for interference observation /11/, wherein, evidently, the incident angles are very close to zero /12/. Evidently, justly, all previous experiments as those of Michelson and Morley /7/ and Morley and Miller /12/ as well the other consecutive experiments with similar Michelson's equipment /13/ has to use the "broad fringes" with "a convenient (in inverted commas, in cheating reality of the largeness - Y.Z.) width and position", obtaining consequently too small fringe shifts (Fig.2).

However, even the best careful well repeated experiments of D.Miller manifest the well decreased optical path difference shifts (Fig.2), where, consequently, "the observed displacement of the interference fringes for some unexplained (see §2-4!) reasons, corresponds to only a fraction of the velocity of the Earth in space" with ununderstandable "partial" "ether drift" that "may be explained (also) on the theory of the Lorentz-FitzGerald contraction without assuming a drag of the ether" /9,11/.

7.6. The clear definitive confirmation of the absolute vectorial Earth velocity.

But it is interesting to note that the direction (near the North pole) /9/ of Miller's

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well reduced Earth movement (correlating with diurnal and seasonal variations) coincides with the real possible resulting Earth movement, because the Solar System moves (magnitude value 250 km/sec) in the direction, also close to that of the Earth rotational axis (to North) /14/. Moreover, "the Milky Way is falling towards our nearest large compaignon M31 at 119 km/sec and the whole Local Group (LG) of the galaxies takes part in the large- scale velocity field" /15,16/. These large scale movements could, justly, also be close to the direction of the Earth axis although "there are few of these questions (velocities of nearby Galaxies) for which we now have definite answer", wherein "most of the questions.. are known.. often within an order of magnitude" /15/. For instance, many such velocities determinations are done with Cosmic Microwave Background (CMB) method, where even some method specialists are too cautious: "The processing (of CMB data) is so complex.. all I can say that competent people did a conscientious job" /17/. Thus the new perspective method to measure precisely the Earth absolute vectorial velocity (with variations of the latitudes, seasons and hours) in measuring the relatively large distances, where the path difference between the  $\parallel$  and  $\perp$  beams is zero (Fig.1-  $x = y = l_0 \beta^2$ ), is born to throw the last earth lump on the coffin of the Theory of Relativity.

7.7. Consequences of Theory of Relativity are not correct.

It was shown already /5/ that the majority of the consequences of the generalized Theory of Relativity are not correct. Let see an other famous precise support of Theory of Relativity: relativity contribution to the rotation of the orbite perihelion of Mercury. Firstly, from the total observed shift per century ( $\sim 5600''$ ), "the residual shift per century to be attributed to general relativity" ("plus solar oblateness") is only  $\sim 43''$  /18/, c.-à-d. only  $\sim 0.8\%$ , where other contributory (several) causes could invest also their own systematic errors. It is already a little suspicious. Moreover, "very careful measurements of the optical shape of the sun" (/18/) show the sensible flattening /19/, that also contribute to the perihelion rotation /18-20/. Such effect was, in reality, well confirmed because there is "the correlation of the eccentricity of the star with the cycle of the solar activity" /21/ (well explained- §9). And these data /19/ are more solid because the maximum of the solar cycle (at 1967) /19/ exhibits enhanced values in comparison with later cycles /22/. In reality, such oblateness data /19,21/ are essentially underestimated because there is "significant dependence of the observed semidiameter with the heliographic latitude" (well repeatable), wherein moreover, justly, at the pole of the oblate ellipsoid there is the sensibly increased (!) radius value /23,24/. Moreover, also the central density of the Sun could also influence the Mercury perihelion movement /25/. Such flattening could be understood as the effect of a rather rapidly rotating interior /26/. And justly, the presence of such rapidly rotating dense sun center confirms perfectly the new process of the Sun system creation due to the explosion of the Sun little "Sister" Supernova, rotating around the Sun /5/, very



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"detectively" confirmed (§8). The scattered pieces of the very dense Supernova (justly, last moment, created) nucleus, made up of the most inert special, new discovered, particle neutro, had, partly, to fall on the Sun, having justly the high spin moment (difficultly explainable /26/) as the small Supernova "heredity". Such neutro pieces also

5 formed the planets, being their attractive nuclei, wherein Earth's one also must rotate more rapidly /5 and §10/. Thus, these very convergent data make the Mercury perihelion support of Theory of Relativity, almost, as the illusion.

Also the famous  $E = mc^2$  must be uncorrect, so the electron and positron are transformed into the neutrino and antineutrino (electronic) with equal masses with the

10  $\gamma$ - radiation. Such transformations are in the basis of the 1st serious materialisation of the electric field, postulating that the space, itself, without neutrinos and antineutrinos, cannot conduct the light /5/. Once more, the "Sun eclipse experiment" is already done: it is real (!) that the light cannot propagate between the (expanding) Universes where there is no yet neutrinos and the cosmic rays with the ultrahigh energy are only

15 the particles without obvious light, came from other discovered Universes (Fig.3), confirming already a falsehood of the famous  $E = mc^2$ . Consequently, at higher neutrino concentrations (at powerful radiating mass), the light velocity is higher and there is th red shift.

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§8. Perfect Origin of Solar System: Explosion of Supernova, Little Star Binary of Sun  
(Physical Sense of Kelper's Laws)- BASES OF GIGANTIC APPLICATIONS THAT  
WILL CHANGE THE EARTH.

8.1. Introduction.

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Certainly, it is not occasionally that "all presently existing solar system formation models are inadequate to explain all observed phenomena in the solar system" /1/, where the "parts of the scenario are connected by loose plausibilities" /2/, in spite of the very intensive Researches, because the determining part of the Creation was, simply, absent in the World Science and even not discussed yet, except the Industrial Property Publication by the author at "last seconds" of the last century /3/. The answer is: the difficultly imaginable, very polarized movement of Solar System is due to Little Star which became the exploded Supernova. "Blind fate could never make all the planets move one and the same way in orbit concentrick",- Isaac Newton in support for even devine seeing providence.

8.2. Kepler's laws are the very natural consequences of such Solar System "devine origin".

Normally the "percentage (of solar type binary stars) can be as high as 90%" /4/. So oppositely, it is the isolated Sun, that is the exception. The mass of the little Sun Sister must be of an order of per cents of Sun mass. "The less massive component (as Little Sun's Sister) moves around the more massive component" /5/ as the relatively massive Moon around Earth. So, at one short moment of the year "-4 499 998 000" (Gamov), the strongest explosion of the small Supernova took place. As a result of such explosion, all pieces (having the original Little Star degrees of rectangular and angular movements) had to scatter in the different directions according to 3d law of the same Newton. So, certainly, the resulting planets had to be at the TWO sides in the radial (where the original velocity is equal to zero) direction from the found explosion site. Let see. Justly, one can clearly see that the planets from Mars (until Mercury) are situated at one side (yet hypothetical) and those from Jupiter (until Pluto)- on another side, without exception. /For instance 6, pp.76 and 78/. I precise: in such situation, the aphelion (and perihelion) of the inner planets must be situated at one side of the explosion and those of the outer planets at another side: justly /6/. Such 100% coincidence is almost the providence: too "astonish" simple and pertinent! even in such already evident proof with expressive "profile".

But not exactly! It is well known that there are the perihelion shifts of the geodesic planet orbits /7/, because it is "any departure of the Newtonian gravitational field from its idealized, special, inverse-square-law form also produces a shift". Such nonsphericities and resulting shifts are brought about by (1) the gravitational pulls of other planets and (2) deformation of the sun ("solar oblateness"; "quadrupole moment"). In addition, "there is an apparent perihelion shift caused by the precession of the Earth axis ("general precession")" /7/. But these effects "are all periodic rather than cumulative with time" although "the periodic effects in the planetary orbits have not yet.. been studied experimentally" /7/.

On the other side, such general permanence of the perihelions of the planet orbits on the large time scales is justly evident from their exceptional coincidence for all

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(without exception!) planets. The round Supernova orbit had undoubtly to be between Mars and Jupiter, where, justly, the large number of small planets (asteroids) rested. But the relatively small part of the shift (less than 6.8% even for Mercury), attributed to the general relativity is doubtful because they did not take into consideration the solar oblateness and other effects /7/. Once more, on the other hand, the imaginative, fine looking, Theory of Relativity certainly does not have ni any basis, ni real experimental confirmations /3,\$7/.

In considering the velocity components of the Supernova pieces after the explosion in the cylindrical coordinates, one can easily conclude that only the radial component is responsible for the eccentricity value of the resulting elliptic- like orbit with the aphelion in this velocity component direction (see also /8, equ. C10a/). So, the simplest physical sense of Kepler's laws about the "strange" elliptic planet movement (without visible physical sense, according to Kepler himself) is very clear with such planet Creation.

And the Z- axis velocity component must be, evidently, responsible for the orbit inclination value (see also /8, equ. C10b/). After the explosion, the planet (its developed embryo) rotates as the piece of Little Supernova around Sun. But due to the new vertical velocity component, this rotation must take place in a "higher" plane, however approximatively parallel to the plane of the Sun equator (Fig.4). And the vertical component of the gravitational (center-to-center: new direction) force tries to return the planet to Sun equator plane (the horizontal component is the centripetal force). So, all planet orbits had to be close to the initial plane of the Little Binary Sun's Supernova rotation, that, justly, perfectly explain so astonishing divine coplanarity of the planet orbits! This coplanarity must be Universal: the extrasolar system planet orbits have, again, the similar coplanarity with the eccentricity /9/, confirming such very general mechanism of the Planet System creation.

And already at 1st looking, one can explain the remarkable details of the planet different movements. For instance, the relatively heavy Neptune has the extremely low eccentricity, because its aphelion is situated in advance (to Supernova rotation) direction from the explosion site (at the level of the aphelion of the haviest Jupiter with relatively weak eccentricity and the smallest distance from Sun between outer planets) and the Neptune embryo was displaced outside only because of the increased tangential (but not radial- see above) velocity component (according to Kepler's and Newton's laws). Evidently, the special chapters will be written for more detailed following explanations for each planet.

Evidently, a large part (that is "symmetrical" to the exterior planets according to 3d Newton's law and includes /the majority/ the fragments with the opposite /to the tangential velocity/ direction) of the Supernova Sun Binary had to fall on Sun. Consequently, almost all elements until the lead (Z = 82) are present abundantly on Sun, converging with the meteorite data /11/ (like with the stars having the planets

/12/). Logically, the close Mercury could avoid the falling on Sun due to the large vertical velocity component (inclination angle) /6/. Only large planets could keep the very strong masses of hydrogen and helium at the planet exterior /4/. The radius of the heavy nucleus of Sun is near 0.5 of the Sun radius (§§9,10), it means its mass is 12% of the Sun mass. Consequently, the mass of this Supernova can be estimated to be of the order of 15% of the Sun mass (to see also /4/).

### 8.3. Very special process of Planet Agglomerations.

It is known that in spite of milliards of passed years, the "asteroid planets fail to grow" /10/, where evidently, "the mechanical and chemical processes related to grain agglomeration are poorly understood" /4/ and "no detailed model of accretion.. has not been produced" /4/. Indeed, the real process of the planet agglomerations could be never resolved without the very unusual new knowledges. During the Supernova explosion there is the creation of the new, exceptionally stable, particle neutro ( $n^{\circ}$ ):  $p^{+} = n^{\circ} + e^{+} + \text{gluon}$ ,  $p^{+}$  - proton and  $e^{+}$  - positron and it is not the neutron ( $n$ ) ( $n = n^{\circ} + e^{+} + e^{-} + \text{gluon}$ ,  $e^{-}$  - electron) and this particle is the principal component of the "neutron" stars /3/. When the mass of the principal star is similar to that of Sun, normally, the satellite mass is less than 0.3 of the Sun one /13/. And during the explosion of such little satellite Supernova, one cannot see the "neutron" star instead /14/, because the gravitational forces are not so strong and there is the breaking of this neutro nucleus into the fragments with consecutive formation (immediate intense beginning) of several planets.

So, it is the neutro nucleus that is the inner heart part of all planets, their necessary "cristallisation" element. And the other planet elements attach around the very dense nuclei (already small invisible). Such heavy nucleus, with the very strong angular momentum, makes much more rapid rotation than the planet rest (§10), like at Sun and planets (§§9,10).

Consequently, the simple accretion of the solid pieces of the matters (asteroid- like) to construct the planets is not imaginable. Moreover, the "different ring systems (of large planets) vary in particle size, optical depth and state of excitation" /15/ and the planet's layer structure (including Earth) is well known /4,§10/. Naturally, yet during the time of the explosion, the melted hot matter of different compositions have made the "phase separated" layers around very dense and attracting neutro nucleus, moving together to their new orbit in cooling. Such hot state creation is well natural because "probably most differentiated meteorites (asteroids!) (with densities equal to only 1.9–2.9 g/cm<sup>3</sup> /10/, it means without neutro nucleus) are melted" implying the "melting of small bodies in the early (too early!– Y.Z.) Solar System" /4/. The similarity of all planet structures (including conserved massive layers with the lightest elements at the giant planets and the atmosphere disappearance) confirms such very important conclusion. Evidently, the new type of simulations of such planet creation will help to establish the precise geological situation of Earth and planets.

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§4. Corrected solar age: sun was fed by powerful hydrogen clouds, burned at surface, that also provoked SN-II switching of its binary low mass star.

"Stars are known to form in clouds of cold molecular hydrogen which are relatively poorly understood" /16/. It is known that there are much larger hydrogen clouds at Gigantic Black Holes which are much more pressed and have an essentially higher temperature ( $10^7 - 10^8$  K!) but the star formation was never observed even at such ultrafavorable conditions /17/ as well as at the dense Supernovae remnants with the geant molecular clouds /18,19/. Consequently, the star formation in worst conditions (without too powerful exterior gravitation) is not very serious, including the analogous Sun creation 4566 million years ago /20/. So on the other hand also, Sun must be older and its wrongly determined age is due to the Sun feeding with dynamic masses of hydrogen clouds, that have the asymmetric distribution in spiral galaxies /21-23/. Justly, the phenomenon of the accretion of the hydrogen fuel exists for already functioning star, where the luminous accretion permits to the accretor to grow and consequently the star evolution lifetime scale must be longer with such growth /24,25/. This must be the natural reason the bulk of very homogenous star population of the elliptic galaxies (without such interstellar hydrogen /23/) is formed (at similar time!), justly early /26,27/.

Such (although weak) accretion (absorption) of the interstellar and solar origin clouds takes place at the neighbour star Sirius /28/ as well as at our star de facto /29/ without the special exterior heating of such gaz /28/. Evidently, such heating takes place at the corona of the stars, wherein the temperature reaches 2 million degrees °K /30/, and even the temperature of the expanding from Sun clouds (into interplanetary space) riches 1.7 million degrees °K /32/.

Due to the accretion phenomenon, the white dwarfs "burn (de facto) the hydrogen rich matter on (its) surface" from the close binary compagnon star /33-35/. The very interesting phenomenon is discovered in such later phase binaries. Due to such hydrogen rich matter on the surface, a series of the hydrogen shell flashes arises and "the ashes of hydrogen burning build up a helium layer at the base of which" "a powerful helium flash" occurs, because "the hydrogen shell flashing region contributes to the increase of the temperature at the base of the helium layer" /33-35/, that, justly, switches already the nova- like very powerful processes. Evidently, at such shell hydrogen burning (as with the accretion of hydrogen by Sun), the changed core mass-luminosity relation for stars takes place /35/.

But I deduce firstly that the similar very important process can take place at an earlier stage of the star evolution: red giant. The possibility of the hydrogen-burning shell flash at the red giants is well considered /36/. Justly it is phenomenologically known that the essential features of the asymptotic giant branch (AGB) of the star evolution are "the thermal pulses also called helium shell flashes" and mass loss /37/.

I deduce and confirm that at the beginning of the AGB (developing red giants), the

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presence of the strong surface hydrogen feedings conducts the stars to the type II Supernova (SN-II) explosions. Justly, the SN-II (being much more common Supernova) creation takes place only in the spiral galaxies (their spiral arms), wherein "their radial distribution resembles that of the interstellar gaz" /38/. And Solar System abundances can be reproduced fairly well by "axisymmetrically deformed" "explosion in type II Supernova" (with chemical isotopes "fingerprints") /39,20/. Logically, justly in the nearby Sun region of spiral Galaxy, the very large hydrogen clouds had to be situated because there is, justly, the very large predominance of the pulsar (SN-II!) distribution in the Sun surroundings (and justly it is not the observation error), wherein such pulsar distribution is very heterogenous in the galactic plane /40/, depending, logically, on the cloud distribution. So the new numerous stimulations must take into consideration such key process of the hot hydrogen shell absorption with its shell flash (and strong helium one in consequence) at such early stage of the red giant for the ending powerful chain of the SN-II explosion with the iron core collapse /41/.

The presence of the special isotope  $^3\text{He}$  was justly observed in Solar System and in Galaxy hydrogen containing regions /42/ and such isotope is produced only by the low mass stars /43,44/, wherein the large  $^3\text{He}$  amounts were found in several planetary nebulae /43/. Moreover, such solar  $^3\text{He}$  abundance may be present "prior to the formation of the Solar System" /43/ (in our model sense). So one can conclude that the SN-II explosion of the low-mass star was the origin of the Solar System. Such low mass exploded Sun binary SN-II could be produced only during interaction with the binary Sun because of strong spin core rotation of the Sun (falled binary pieces- §9) and the planets as Earth /3/.

Justly, the SN-II (radiopulsars: rotating "neutron" stars) represent the two types: (1) from wide binaries without interaction (total "absence of observed radiopulsars in wide binaries") (in reality, very weak rotation) and (2) from close binaries with interactions and very rapid spin rotation (from their mutual interaction), where the mass decrease could take place also /46/ (double pulsars are always observed only at close binaries!) /46/. Logically, one sole pulsar (never as the double wide binary) must be the "diffuse Supernova remnants" /46/, as the Solar System scattered parts of the very small Sun binary (§§8.1-8.2.). Justly, during such close binary interactions (as accretion), the donor loses the mass and could become very small, even equal to 0.02 solar mass /Refs.3/ or could be even equal to 0.002 solar mass /47/. (Our Binary /in the explosion moment/ had to have the mass equal to ~0.15 mass solaire- §10). Consequently, all data, concernant the origin of Our Solar System due to the exploded Solar Binary (of Type II Supernova) are too convergent and proved.

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#### §9. Principal Processes of the Sun Function as Cycles, Spots, Storms: Climate Prediction on Earth.

Evidently, with §8, the principal mysteries of the Sun functioning are resolvable.  
Evidently, there are the magnetic dipoles in Sun (§8): due to the rapid independent  
rotation of the dense neutro nucleus and the rotation of the exterior rest (envelope)  
where the angle between the rotational (of rest) and magnetic /evidently closer to the  
axis of the rapid rotation of the dense body which must also absorb the charges (§10)/  
axes is weak ( $\sim 6^\circ$ ) /1,2/ and evidently, the effective magnetic pole is situated in the  
interior ( $\sim 0.5$  Sun Radius) /1/. Evidently, as in the Earth case (§10), the relative  
movement (but without the precession and nutation) between the two electric currents,  
in the same direction, will produce the corresponding permanent magnetic classical

force to the interior (§1). But this force will be modulated by the precession and nutation processes (as for the top) /3, Fig.14-35/: around one center, that does not coincide with the center of the rotation of the exterior part (envelope) of Sun, because there is the meridional central solar region ("Greenwich"), producing the most powerful spontaneous ejections /4-7/, as the meridional region at the Pacific Ocean with very important number of the earthquake (§10). The period of the complete nutation is ~22 years (complete solar cycle of Hale), where the period of the precession cycle (one circle!) (including 4 nutation cycles) (Fig.5) must be equal to ~80 years /8/. The part of the movement of one nutation period to the rotation axis is responsible for the additional force to the interior (parallel currents- §1) (odd solar cycles) and that FROM the rotational axis is responsible for the additional force to the exterior (even cycles) (antiparallel currents- §1). And, justly, the 20th cycle is much less active than the 19th cycle (the most active during 80 ans), it means: the 19th cycle is one with the most strong approach (from 4 nutations of complete period) of the magnetic moment of the nucleus to the geographic pole and justly, the additional magnetic force has the same direction as the permanent magnetic force of the currents of the same direction /1,§1/. And during the 20th cycle "the force of the separation of the currents" to the exterior is the most weak due to the subtraction (this time) of the permanent force. But the 21th and 20th cycles like 16th and 17th have not to have the same difference because these movements are "by flank" and must be much more similar. Justly, all data of the solar neighbouring cycles (11 years) (from 1850 /3, Fig.11-7/) have the difference, without exceptions (!), corresponding to this process, already proven!

It means the sunspots represent the rapid movement (strong magnetic field: strong Zeeman effect /9, p.274/) of the flux in the direction of the resulting force of the cycle: radial flux to the exterior (even 22th cycle) and that to the interior (odd 23th cycle), that was justly registered /10/, and that must provoke the magnetic flux ("magnetic flux tubes") along the east-west direction (justly to the direction of Coriolis force) /10,9, p.285/ with justly the red shifts (flux to the interior) and blue shifts (flux to the exterior) of Doppler effect /9,11-14/. In 1991-1995 (even cycle "to the exterior"): the declination of the currents of the active regions (sunspots) is to the east.

The details also prove this great discovered process. The vertical flux is necessary to feed the observed horizontal flux /13/. All is clear. These magnetic forces must be directed /15/ to the equatorial latitudes. Consequently, the sunspots are present at the weak latitudes (<40°) /16,17/ in difference with the stars (without two magnetic moments and the same processes), making the rapid rotations, where the sunspots are present at the polar regions /16/. Naturally, during the large partie of the solar cycle, the structure, depending on the latitude, is observable: (1) the negative and positive polarities are observable at the "sector- zone" and (2) the unipolar regions are present above and below of these zones /18,19/, where justly during 10 years there is the



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predominant polarity "for exterior" ("away") and during next 10 years there is that "for interior" ("towards") /20/.

Evidently, the beginning of the even cycles is more "difficult": the appeared force ("away", "to the exterior") must, firstly, "defeat" the constant force "to the interior" ("towards"), and this is, justly, the reason that the sunspots and the geomagnetic winds begin with the 6 year delay after the cycle beginning (so called "cycle" of 17 years) /21/. According to the data with the modulation of the cosmic galactic rays, also, the maximum of their flux through the Sun /when the distance is smaller between the Sun magnetic dipoles (cycle minimum: transition from the odd cycle to even one like N°19→N°20)/ is narrow but it is wide when there is the another cycle minimum (cycle transitions: even→odd where the distance between the magnetic moments is justly larger /9, p.409,22/).

Evidently, the meridional region where the pole is situated /and even, moreover, the center of the interior body is displaced (§10)/ (stronger interactions) must be responsible for the majority of the energetic proton ejections /4,6/, and these chaotic ejections (resembling the Earthquakes!) are ejected during the decreasing part of the cycle (1/3 of events), after the maximum of the quantity of the spots (between 1/3 and 2/3 of ejections) with the rest (1/3) /23,5,24/ (evidently, with the 27 days period of the maximal ejections, equal to the period of the Sun rotation /spin/) /24/. Evidently, during the even cycles there are the strongest ejections (storms as Earthquakes) (it is not sunspots) /23,5/ because of the stronger instability due to the opposite forces. It is normal that there is some superposition of the heliomagnetic activities between the regions according to the latitude /7,25/: equatorial regions with the wind from regions of the "belts" of flux (20° around equator) and the rapid stable wind of the polar regions 26/.

Evidently the precise knowledge, with necessary equipment for this according to this great process, described the 1st time, et surely proven, must produce the necessary data (the electromagnetic fluxes /storms/, the quantities of the solar radiation and the influence of the nutation of the magnetic dipoles on Terre) for the Meteorological /27/ and seismic (§10) prediction.

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§10. Earthquakes are due to magnetic interactions between interior neutro body (very rapid rotation) and the mantle (charged).

One could see (§8), that the Earth heart is constituted by the dense nucleus from neutro (internal nucleus). The well established fact, that there is, justly, the very strange reflection of all seismic waves (even those that passed the exterior liquid nucleus), from this dense nucleus /1-3/, confirms this, because this exceptional matter (§8), in the interior, does not have the charged particles and the electromagnetic forces (only strong gravitational forces) and, evidently, the phenomena, which are at the base of Hook's Law (that is responsible for the propagation of the seismic waves) do not take place in this new matter! And evidently, this interior nucleus must have the similar properties to those of the "neutronic" ( of neutro) stars /4,5/: as degree of the rigidity (due to the dense gravitational forces) with some fluidity (absence of th electromagnetic forces) /6,1/. Also, the stars of neutro possess universally one rapid rotation (spin) /7-9,§8/, that is also the propriety of the interior nucleus of Earth. This ultrarapid rotation of the stars causes the presence of the very strong star magnetic field /7-9/ because there is the strong gravitational absorption of the charged ions on the surface /9/. The same thing, evidently, must take place with the interior nucleus of Earth (to see also /11/). The propagation (however) of the seismic waves near the surface of this interior nucleus and also the polarization of the nucleus (more rapid velocity for North-South direction /1,2/ because of a stronger absorption where there is no strong centrifugal forces) validate these data. Evidently, the data, concerning the weak (weak) rotation of the nucleus are false /10,11/ (as also the very weak angle of the "declination" of this axis with that of Earth and its North pole, situated at too south position /12/). But their data must reflect the presence of the independent real rotation. Evidently, the nontypical absence of the classic laws in the interior nucleus is the base, apriori, of the last experiments, evidently erroneous /10,11/.

Consequently, Earth must have the relatively strong magnetic field due to the rapid rotation of its interior body. And evidently, the 98% of the magnetic field is not produced by the mantle /12/. The theoretical estimations confirm that the interior nucleus is the major source of the Earth magnetic field /13/ where, justly, the border between the exterior and interior nuclei (absorbed massive charges- to see above) plays the important role for this /13/. Evidently, the liquid of the exterior nucleus does

not have such rapid and stable rotation and evidently, does not have the strong magnetic field. The rotational axis of the interior nucleus, logically, has the relatively weak angle with the rotational axis of Earth, because the North and South magnetic poles are at the regions where the latitude is high, although their determinations are not precise (particularly, due to the very strong magnetic anomalies that are present justly in these polar regions) and there is the significative difference in the correspondence of the positions and of their variations between the North and South poles /14,15/. The influence of the nucleus is, simply, due to the mutual interactions of the moving (relatively) charges ("magnetic" interactions) (§1). When the fields of the mantle charges have a stronger change of the mutual deformation with those of the interior nucleus, the "magnetic" force, that prevents such deformation, arises (as in the case of the electric currents of the parallel or opposite directions but in this case, they become more parallel or more opposite), it means the magnetic field gradient appears, producing the vertical force (radial) where, justly, "the vertical changes of the layers are transformed into horizontal ones", in provoking the Earthquake /16, 17- Fig.17-7/. With such evident tension in one of the parallel layers there is the fracture (and focus) of the Earthquake /Fig.17-7- 17/. This is very clear proof of the very general cosmic process (§§8,9)!

This is the real process of the electromagnetic coupling: nucleus- mantle /18/, when the tension of the "fault" is only the function of the velocity of the tectonic tensions from the far fields /19/. Evidently, the fault ("curing" with time) serves for an easier site for the new fault during the application of the new tension in the same large region /20/.

The Earth rotation has the applicable fluctuations according to the mechanic laws due, in particular, to the torque of forces, made by Sun and Moon on Earth /21,22/. As a result de facto, for the Earth rigid mantle rotations, one distinguishes the precession of equinoxes, characterized by the 25800 years period (precession angle is  $23^{\circ}17'$ ), to which the nutation movement (18.6 years period) and the movement of the Earth axis (Chandler period) due to the Earth oblateness (305 days period and radius of ~ ten meters) make superposition /21,22/. Evidently, Sun and Moon make the same types of torques on the interior nucleus too, which (very dense) make the quasi-independent (!) rapid rotation (spin!) with displaced center (at the equator plane- to see below) of Earth. One can calculate such movements for the interior nucleus too, as they calculated these movements as routine for Mars and Earth /23,24/. But it is more complicated for Earthquakes: it is relative movement of the 2 magnetic moments, that is important, or rather their approaches and separations. And one can make it for these relative movements (that depend on a number of factors) empirically and very precisely (§12).

The experimental data largely confirm the concluded process. The changes of the

vertical component of the magnetic field was clearly fixed in a number of cases during the earthquakes and the volcan eruptions (including "before" and "after") /25-38/. Evidently, one could not, in advance, put the magnetometers everywhere (at strong density) and, for instance, during the two decades, they could fix only one  
5 preseismic signal of 1.5nT, in spite of the network in California with transmissions par the telemetry with satellites /35/. The magnetic field changes were , justly, positive and negative (!) /25,27,31-33/, that justly confirm the process: in the case of the positive changes, the radial force component (to the exterior) carries up the earth on the surface /39/, but in the case of the negative changes, the magnetic force make the  
10 depressions of the earth. But it is due to the unequal redistribution of this force (evidently in correlation with the velocity of its change!) in the directions of the Earth surface (that one can judge by the difference of the change of the vertical component of the magnetic field /26/ according to the site around the epicenter of the earthquake) /31,34,4,31/. Moreover, the sites (and time) of the majority of the  
15 Earthquakes make the correlations with "the minimal points of displacements" /26/. Moreover, the majority of the sites of the earthquakes "are present at the vicinity of the frontal line of the sudden change" of the vertical component of the magnetic field /26/, it means where the horizontal force gradient is, justly, maximal! Evidently, th periods of the slow systematic increasings at the sites without sensible previous  
20 earthquakes and the systematic slow decreasings of the magnetic fields (including rather the vertical part) must take place /25,35/, due to the process of the periodic interactions of the two grand Earth spins. Evidently, the fracture of the layer depends also on the site of the force applications.

The case of volcans, where the magnetic material (lava) /41/ mounts or  
25 descends, depending on the direction of this magnetic vertical force, confirms clearly these data. And this is from Classical book: "Calderas are.. the depressions of volcanic origin" "after a magma chamber empties" (interior force!), but "later activity can lead" to the new eruptions /17, p.359/ (evidently, weaker after the destructions). Evidently, at more polar regions, the quantity of the Earthquakes diminishes, because the  
30 component of the relative position change between spins in the poles directions is weak although the vertical magnetic field is stronger. The convergence of all data is excellent because it is proven. Moreover, the clearly analogical data with Sun prove clairly that there are the 2 consecutive cycles with the different directions of the magnetic vertical field: also to the center and to the exterior due to the relative  
35 movements of 2 strong analogous spins (§9).

The very different data concerning the planets of Solar System confirm well these conclusions. The planet densities vary and one attributes the following quantities of iron: Mercury- 62.3%, Earth and Venus- 32%, Mars- 16% and Moon- 13% /43/, that represents, in reality, the interior nucleus from neutro, in large part. Consequently, the  
40 radius of the int rior nucleus is 43-47% of Earth and Venus one and only 34% in the

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case of Mars /44/ and only 10%- in the case of Moon /45/. Consequently, evidently, Earth and Venus have the significant field, but Mars and Moon have the weak one /46/.

In the case of Venus, there is, justly, the exceptionally strong ionosphere due to the ions of the very concentrated sulfuric acid /47/. And this well charged layer, evidently, diminishes the force of the magnetic field (screen effect), evidently measured from the planet exterior /47a,b/. Again, evidently, the volcanic activity is strong where there is the strong magnetic dipole (§§8-10) and, justly (!), there a lot of volcanic products in the Venus atmosphere ( $H_2SO_4$ !) and its quantity is less in the Earth one, but justly such products are absent in the Mars atmosphere /47/! Normally, the obliquities (angle between the axes of the orbit and the rotation /spin/) of the planets are weak, but the Venus one is equal to  $177^\circ$  /48/. This must signify also the presence of the grand angle between the axes of rotation and strong magnetic dipole of the neutro nucleus, that is always close to the axis of the planet orbits because of the conservation of the angular momentum (horoscope effect) of the heavy neutros of exploded Supernova (§§8,9). Consequently, there is the strong variable superposition between two magnetic dipoles: that of rotation and that of mantle and the strong variation of the orientation of the magnetic field on the direction, close to the Sun-Venus axis /49/. Consequently (in difference with Earth and Sun), the permanent magnetic force (without nutation modulations) is to the exterior, because these electric currents are opposite.

And justly, as an exception, there is much stronger variation of the positions of the volcan craters (relatively Earth) and the 80% of the craters are "fresh" /50/ (because this time, the exterior force is stronger and the volcans sleep rarely)! Consequently, the Venus mantle rotation must be more rapid /51/. And due to such difference of the axes direction and a much stronger activity in the Venus interior, the symmetry axis of Venus is close to its orbital plane /52/! The relatively parallel displacement to the direction of the orbit axis of the interior neutro nucleus (in the Venus interior) must be responsible for this. Justly, this (but in less revealed form) must explain the presence of the SOLE (not the 2 natural) superior ("Greenwich")meridian at Sun (§9) and the sole region (sector) of the excessive volcanic activity (zone of Pacific ocean with its oceanic volcans that are absent at Atlantic one) on Earth. Logically, a havier part of the planet (as Earth), with the united continent plates, was, justly, more distant from the nucleus center to balance this de-symmetry of the centers of the interior nucleus and Mantle.

Justly, the magnetic forces (to the exterior and interior, consecutively) are responsible for the very strong atmospheric equatorial currents of all planets with the atmosphere and important magnetic moments: Jupiter, Saturn, Uranus, Earth, Venus (superrotations!) in the west or east directions /53-55,47,44/. With the radial force and the planet rotation, it is the clear Coriolis force, proportional to  $[\vec{W}, \vec{v}]$ , that is directed to the east or west, very simply. The famous storms EL-NINO are one of these cases. In

1982 and 1986–1987 there were the ascendant currents in the troposphere and ocean and the deviation to the east during the crise /56,57/ corresponds well (justly) to the direction of the Coriolis force. The accompanying (the strong storms EL-NINO ) eruptions of the oceanic volcan /58,59/ must ionize the air to follow better the magnetic force. In 1996–1997, during the EL-NINO crise, the direction of jets must be descending and to the west /60/.

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§11. Cause of Big Bang is the energy of all electromagnetic waves,conserved and concentrated. 2nd Thermodynamic Law is not correct.

The diffuse background radiation is extended from the radiowaves to the  $\gamma$  rays /1,2/. But where is this radiation from? The question is often open /1/. For instance, the strong "intensities of the microwave radiation (very homogenous), from the diametrically opposite points of sky, are identical (with precision: hundredths per cent)". These opposite points are "~30 milliards of light-years away" /3,2/. But one has these results, justly, after §§5,6. At the Confines of the Universe (milliards of light-years), where there is no neutrinos and antineutrinos (conductors), the light must be reflected by the neutrinos of the frontier, because there is no electric field at the exterior, and the light reflection must take place ( $180^\circ$ ) and because of this, due to such ( $180^\circ$ ) numerous reflections, these opposite points of the reflections are identical! /3,2/. Evidently, this concerns all light frequencies and, evidently, this diffuse (justly after numerous reflections) background radiation extends from the radiowaves up to the  $\gamma$  rays /1/. Consequently, during milliards years, all light does not leave the Universe. But cela signifies that the 2nd Thermodynamic Law (in bulk) is not correct and there is no entropic death of the Universe.

But again, with the discovery of the important mass of the electronic neutrinos and antineutrinos (§§5,6) and their presence everywhere in the Universe (in expansion), one can consider that the critic density of the gravitational forces of the Universe, necessary to invert the Universe expansion, is present /4/. It means, from one moment, Universe will begin to contract in diminishing the global entropy of all irradiated light during milliards of years by all Universe stars! Evidently, with the critic radius of the Universe contraction, the enormous explosion (New Big Bang) will take place, in transforming this great energy of the light into the creation of the small fragments, made from the dense extinguished matter. Justly, the reason of the Big Bang explosion was never explained. This is the chain of the eternity of the Universe Life with the INFINITE quantity of Big Bangs! Evidently, one can utilize this energy of Big Bang.

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§12. New practical part of the new consecutive development (§§7-11) from WO 99/56288 (§§1-6).

The part (§§1-6) of this invention, already published: WO 99/56288, conducts,

already "easily" to the important consequences with the practical applications concerning rather the Sciences and the Technics of the Earth.

By the most general, the most basic, the most cosmic way, where the same laws of the Universes are for Galaxies and Stars, Sun and Terre, Moon and Planets, I resolved the problems that are at the heart of the formation and the interior functioning of Earth, Sun, Planets with the consequences that must change, in practice, the face of Our Planet.

Without such the most general approach, So profound solution would not happen, never. Moreover, these very important for Humanity processes are already calculated and proved by the necessary number of the very detailed, VERY different, exceptionally convergent (only for these processes) facts, so important for Humanity. The part of the description of the practical consequences had to be already described in precedent Chapters (§§7-11).

a). After the proof of the falseness of Theory of Relativity and the strict, correct, profound calculations of the measurements on the equipment based on the Michelson's interferometer (Refs. §7), one can easily measure the change of the position of the inclination or the orientation (H01H 35/02, BG5G 47/00, B65G 47/22) of the carriers, even without any visibility. And one must understand that one can have the another position of the virtual images  $M_{2i}$  and  $M_{1j}$  in the mirror  $M_2$ : it is the image  $M_1$ , that is farer from the mirror  $M_1$  (Fig.2B), adjustable more difficultly with the white light and that was never found neither by Michelson, nor by Morley, nor by Miller /Refs.9,11-§7/. Equally (§7.4.), in this case, the interferometer shifts will indicate also the false absolute velocities of Earth, but their values will be, oppositely, higher (Fig.2B). But the equipment (Michelson's interferometer as the basis) will be very sensible to determine (in seeing nothing!) the change of the inclination position or of the orientation of carriers (H01H 35/02; B65G 47/00; B65G 47/22), in scanning automatically all positions in the space (3 dimension- stereoradians) direction and in finding systematically the maximal difference between 2 perpendicular positions.

b). Evidently, the knowledge of the mechanism of the process of the functioning of Sun and the evolution of the classical measurements as magnetic, electric or spectral (G01V 3/00) but more precise and intentional, according these processes well written (§§8,9), must permit to predict the evolution of even the general climate in advance for years and also for the current time (G01W 1/00- meteorology- classical instruments to measure the variables.. in general).

c). The applications, concerning the domain of the Science and the Technics of the Earth (§10), are urgent as the predictions of the earthquakes or the extinction of the very harmful volcan.

The correlation between the earthquakes and the diminution of the length-of-day is well established /1/ (in reality, it is the same cause!). The periodicity of the length-of-day is very complex, but one sees clearly /2, p.816- Fig.9,10/ its dependence on the



perihelion (aphelion) of Earth (relatively Sun- 1 an) and the perihelion (aphelion) of Moon (28 days) and also, for instance, on the oscillation of the polar axis of Moon /caused by the oscillation of the elliptic orbit, justly (§10)/ (period: 18.6 years) /3/. Consequently, the periodicity of the ascendent and descendent forces, making the Earthquakes must be clearly and easily established by the statistics of the very numerous Earthquakes (already happen), but with the data, concerning the ancient sites, but already all precise (the most strong coseismic displacement, happen in epicentre), the strongest volcan eruptions and the precise directions of the jets of EL-NONOs. Logically, this dependence must reflect (in some part) the cycle of the 4 consecutive nutations, clearly established for Sun (the most simple case- §9, Fig.5) with the very effective modulations by the periodic movements of Moon, principally.

Evidently, after knowledge of such origin of the Earthquakes, volcan eruptions and EL-NINO storms, one can already establish the VERY dense world network of the magnetic sensors (firstly the vertical component of the magnetic field) (like seismo-magnetic ones /4/) and follow exactly the actual of the interactions of the spins of the rotations of the Interior Nucleus and of the Mantle (G01V; G01V 3/00) and in comparing it with the established function (see above), that will precise regularly the long date predictions and will save millions of men (G01V 1/00). The atmosphere contamination by the volcan is very harmful and one can extinguish all volcan, in utilizing the classical means as the explosives or the electric discharges (G01V 1/104, 1/157) in the sensible layer near the volcan at the corresponding period of the magnetic force to the interior in the moment when the captors give the best increase of the vertical component and of its horizontal gradient. By the analogous means, one can create the islands (!) (E02B 17/00; E02F) within the oceans and seas (preferably, at the zones of the seismic activities) in the corresponding moments of the magnetic force to the exterior (uplift of earth) One can succeed by the utilization of the magnetic masses to make the best force gradients.

#### d). Energy of Process of Big Bang.

Evidently, one can utilize the energy of the discovered process, analogous to Big Bang, well studied and well known, in creating the very high temperatures: in making the explosion with the published means /WO 99/56288) in the small closed volume without the neutrinos and antineutrinos outside (for instance, with the help of the light and electric field- §5) (G21K 1/00; H02N 1/00; H02K 44/00).

#### References (§12).

1. Gross, RS Geophys. Res. Lett. 17,1009,1990. 2. "Dictionary of Sciences of Earth. Continents, Oceans, Atmosphere" (Encyclopendia Universalis, Albin Michel, Paris),1998.
3. Pesek, I. Earth, Moon, Planets 38,45,1987. 4. Krylov, SM Seism. Instr. 21,1,1990.

#### §13. L gends to Figures.

Fig.1. The precise geometry of the Michelson-Morley-Miller experiments. The scales of the light displacements are arbitrary for a convenienc .  $V_e$ - absolute Earth vel city,

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c- light velocity value.  $\beta = V_e/c$ . Length ( $l_0$ ) of the "shoulder"  $OM_1 = 32m$ ; S- light source,  $M_{2i}$  and  $M_{1i}$ - virtual images of the light source in  $M_2$ ;  $M_{2i}l$  and  $M_{1i}l$  are the distances to any point  $l$  at the observable line  $OM'$  in the creation of the interference pattern with help of  $M_{1i}$  and  $M_{2i}$ ;  $AM_{2i}$ - interferential path difference; G- semi-transparent glass plate; T- observing telescope;  $M_1$  and  $M_2$ - mirrors. A.  $OM_2O'$ - total light path in perpendicular ( $\perp$ ) to the  $V_e$  direction, wherein the light "meets", at the displaced  $O$  observation point (becoming point  $O'$  due to Earth movement), the beam separation point, the parallel beam.  $M'_1$ - new mirror position after Earth displacement ( $OM'_1$  light trajectory).  $OM'_1O'$ - total light path in parallel ( $\parallel$ ) direction until the same point  $O'$ . E- is arbitrary observation point (at distance  $x$  of order of  $l_0\beta$  from  $O'$ ).  $OM'_2E$  and  $OM'_1E$  are the total  $\perp$  and  $\parallel$  light paths until point E.  $OM_2 = M_2O'$ ,  $OM'_2 = M'_2E$ ,  $M_2P' \perp OM_1$  and  $M'_2P'' \perp OM'_1$ . B. Device position after its rotation counter-clockwise, through  $90^\circ$ .  $M'_2$ - new  $M_2$  position due to Earth movement. Observation at any point  $E'$  /distance  $y$  from  $O$  (order  $l_0\beta$ , in reality order  $\sim l_0\beta^2$  as the  $x$  value- 3.3.2.)/.  $OM'_2NE'$ - total light path in parallel direction ( $OM'_2 = M'_2N$ ).  $M'_2P$  is perpendicular.  $OM_1E'$ - path in the  $\perp$  direction.  $EE' \perp OE$ . (E)H and H(E')- positions of E at the moment when the light arrives to  $M'_2$  and  $E'$  (due to Earth movement).

Note, that:  $V_e \cdot t_{\parallel} \approx V_e \cdot t_{\perp} \approx V_e \cdot l_0/c \approx l_0 \cdot \beta$ .

Fig.2.A. Evident desensitization of the Michelson-Miller Interferometer. Due to the automatic difference between the  $\perp$  and  $\parallel$  light paths, the registered shift of the interference pattern is much less than it were to be.  $M_{1i}$  and  $M_{2i}$ - virtual coherent images of the light source in  $M_2$  mirror ( $M_{1i}$ - is the image due to path at the  $M_1$  mirror directions that is /as secondary/ visible in the  $M_2$  mirror with help of the focused appropriately telescope T). Maximum (Max)  $N^*1$  is any particular interference maximum that would be visible if there is no special obstacles. Max  $N^*2$  would be the new position (because of the shift) of Max  $N^*1$  due to the increase of the optical path of the " $M_2$  path" /as the pathway with the plexiglass (with increased optical density) on the pathway as at the phase fluorometer calibration or the delaying influence of the Earth movement/. Max  $N^*3$  is the real position (very decreased shift) of Max  $N^*1$  because of the above influence: real Michelson interferometer measurements due to the superposition of the permanent difference between the both pathways (on interference pattern of the  $M_{1i}$  and  $M_{2i}$  virtual coherent sources), which, itself, depends on the NEW position of the maximum shift (VARIATION with  $x$  and  $y$ - Fig.1A,B). Situation (here), corresponding to the configuration of Fig.1A. B. Evident Hypersensitization of the Michelson-Miller interferometer. This time the virtual image  $M_{2i}$  is adjusted (more difficultly) to be farer from the  $M_2$  mirror! One sees equally (to Fig.2A) that the shift in  $X_2$  (of the original  $X_1$  maximum) increases (this time) automatically the measured  $X_3$  distance. Configuration, here, of Fig.1B.

Fig.3. The exciting proof of the absence of the light propagation between Universes (UV) and consequently of the nature of the electric field and the falseness of Th ory

of relativity consequence:  $E = mc^2$ . The cosmic rays of particles with the highest energies pass solely without the imperatively accompanying light (electromagnetic waves) (??!) from the very precise (relatively large) sky regions. The light cannot pass between Universes in the vacuum without neutrinos ( $\nu$ ) and antineutrinos ( $\bar{\nu}$ ) and one does not see the Universes a priori without special neutrino telescope (CR- cosmic rays).

Fig.4. The cause of the obligatory eccentricity of all orbits of Solar Systems. (The illustrated case is for the interior orbit, like the Mercury one). After the explosion of Supernova Binary, that rotated on the larger (here) orbit, its fragment (as Mercure) must rotate on the orbit that is parallel to that of Binary. Consequently, from the direction of the force of the gravitational attraction ( $F$ ) (that is angular, this time, relatively the new orbit plane) to Sun, there is the creation of its vertical component ( $F_V$ ), that returns the fragment towards the plane of the ancient orbit of the Binary. ( $F_C$  - centripetal force).

Fig.5. Mechanism of the process of the Solar Cycles. The dense interior core (nucleus) of Sun makes the asymmetric precession (with "Greenwich" meridian) with the 4 periods of the notation of the superposition around the rotational axis of the exterior rest ("envelope") of Sun (N- its North pole). The projection of the magnetic momentum of the nucleus on the solar surface makes the circle with the period of ~80 years, composed of the 8 periods of the 10-11 years, of the 4 periods of 20-22 years and of the 2 periods of ~40 years! (The numbers of the solar cycles are near the corresponding part of the cycle).

#### Important Supplement for Research- According to Law.

According to Law /for instance, Art.52(3) of Convention of European Patent Office (EPO)/: "The provisions of paragraph 2 (as nonpatentability of discoveries and scientific theories AS SUCH) shall exclude patentability of the subject-matter or activities referred to in that provision only (ONLY) to the extent to which a European patent application... relates to such ...subject-matter or activities AS SUCH (it means without their practical applications)". To see also the Accord between a number of Offices making the International Search (as EPO, of USA, of Russia, of Austria, of Sweden, of Japan) and World International Patent Organisation in "PCT Gazette" 56/1997 (Appendix B): "are not excluded from research (PCT) or examination (PCT): all objects that are submitted to the research or examination according to the national procedure". Very clearly, as well in "Guidelines for Examination in European Patent Office" §CIV-2.2.

The direct stipulation is absolutely EQUIVALENT (since secondary school since 12 years since "their" Euclide) to the stipulation, opposite to the inverse one: "If the European Patent Application concerns the subject-matters (as the discoveries and scientific theories) with their applications (= "not as such"), they are patentable ONLY in this case"!

So on stipulates clearly according to DIRECT Law /stipulation opposite to the inverse

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one of Art.52(3) these subject-matters (like discoveries and scientific theories) are patentable only with their applications (!). Consequently, the claims, concerning "Theory or (EVEN!) principle underlying the invention" (letter "T" according to the Form of the EPO Research) (to see also "Guidelines.." §CIII-2.2.) and claims, concerning their practical consequences must be considered ONLY ENSEMBLE, according to the law. Consequently, I present here the (preliminary) International Classification of Patents with the mentions of the corresponding claim Groups, serving to the establishment of each element of I.C.P.

Claims 1,2,3,5: H02K 44/00; G01P 3/50; G01B 11/03; G01R 5/00, 33/00; G01T 5/00; G01J 3/00. Claims 3,4,6: G01T 1/00; G01J 3/00; G21H 7/00; G21K 1/00, 7/00; G02B 23/00; G01B 15/00; G21G 1/00, 5/00. Claims 3,4,7: G01T 1/00, 7/00, 7/02, 7/04, 7/06, 3/00; G21G 1/00, 5/00; H05H 6/00; G21C 23/00; G21K 5/08; G21D 5/00; G01T 7/02. Claims 3,4,8: G21K 1/00; H02N 1/00; H02K 44/00; G01V 7/00. Claims 3,4,9: G01P 3/50; G01B 11/03; G02B 23/00; H01H 35/02; B65G; B65G 47/22. Claims 3,4,10: G01R 5/00, 33/00; G01J 3/00; G01T; G01W 1/00; G01V 3/00. Claims 3,4,11: G01R 5/00, 33/00; G01J 3/00; G01T; G01W; G01V 1/00, 3/00, 1/104, 1/157; E02B 17/00; E02F. Claims 3,4,12: G21K 1/00, 5/08, 7/00; H02N 1/00.

Unity of Invention (S-03 /1998, "Gazette du PCT"). I develop here the New Atomic Scale (Microworld) Physics (instead of the "Einstein-Bohr" Physics of XX century, established by Greatest geniuses) with this "sole general" conception with absolutely (and often opposite) new principal bases and revolutionary (for milliards of years) concrete applications. Evidently such new field (even the new Science!) general invention entitles the new general claims /".. an invention which open up a whole field is entitled to more generally in the claims than one which is concerned with advances in a known technology" ("Guidelines.." - §CIII-2.2.)/. But I guarantee the Unity of Invention also (also) with the help of the discovered New Force in the Atom, conducting further to the net negation of all basic foundations of the Einstein-Bohr Physics, constructed from beginning of XX century and to the creation of the Absolutely New Atomic scale Physics with the titanic applications in the sure continuous chain of the sure inventive discoveries, "considered as one whole, relatively to the technical field" where the developed continuous components of these chains (claims) "contain all characteristics of the previous ones" ("Gazette du PCT" S-03/1998 p.46). So the Unity of Invention is made in the double form.